

COUNTRY GUIDE

THE FARM MAGAZINE

U.S.B.
#4
Lacombe Hog

Beef from Down Under

Dress Up for Spring

(Patterns)

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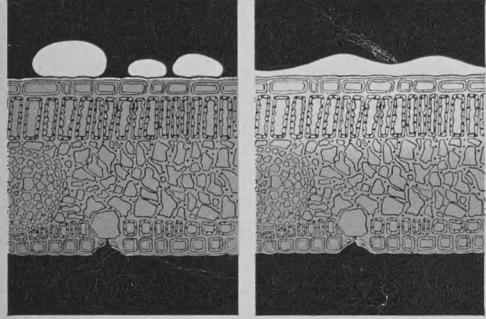
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Dall Ram

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Timely Tips

DO you groan or grin when March's longer, brighter days and softening temperatures herald spring cleaning time? Here are some timely tips to help you plan for the extra chores the season brings.

First, list the things that need to be done. Make your list in two columns. In one, list the stand-up chores. They include such tasks as taking up rugs and cleaning out closets. In the other, list such sit-down jobs as mending slip covers and curtains, or tidying drawers. With such a list it's easier to budget your energy. In other words, do the heavy jobs when you are feeling strong enough to cope with them. When your energy is at a low ebb, that's the time for sit-down chores.

It's most important to keep your system flexible. This way you can hang out winter woollens to air on a sunny bright day. On rainy days, turn your attention to cleaning cupboards and storage chests.

Why not re-arrange storage shelves as you clean? You will find it helpful to move much used things to waist or shoulder level. Plan to group together items used together, for example, teacups, spoons, tea bags, sugar.

Whatever you do, work systematically. You might find it helpful to group jobs to be done in a particular area. For example, you might wash down the kitchen cupboards and straighten out food and china shelves in one day. Another day you might put linen closet, bathroom cabinets and medicine chest in order.

Kitchen cupboards and food shelves deserve special attention. Check packages of cereals, skim milk powder, etc., to see that they are tightly closed. Cereals and flours are best stored in tightly covered glass jars or tins to keep out insects.

Foods stored for long periods in open packages lose flavor; in some cases, they become rancid. Over a period of time, skim milk powder will take up moisture and become "caked." Foods that are seldom used or bought in large amounts are best kept in cold, dry storage.

Although canned foods will keep indefinitely, it's best to rotate old stocks and use them up within a year. If you store home canned fruits too long they may lose color, particularly if they are exposed to light. Check jams and jellies to see that they are in good condition. You'll find an inventory of last season's stocks a help in planning this year's preserving program. Old stocks should, of course, be used up first.

It's also time to check frozen foods. Most fruits and vegetables maintain high quality for 8 to 12 months at 0°F. or below; citrus fruits and juices 4 to 6 months. Recommended storage periods for meats and poultry are: beef, 4 to 6 months; pork, 1 to 3 months; poultry, 4 to 6 months.



ESSENTIALLY a cake of 'welcome' . . . Simnel Cake is handed down to us from Biblical times. Simnel Cake has a delightful piquant flavor dramatically contrasted with a sweet almond filling. For perfection observe the tradition of all good cooks: "Bake it with Magic, serve it with pride."

Simnel Cake RICH IN FLAVOR AND TRADITION

Simnel Cake

For the almond paste:

½ lb. blanched almonds	3 c. sifted icing sugar
1 c. fine granulated sugar	2 eggs
	1 tsp. almond extract

For the Cake:

1 c. currants, washed and dried	2 tsps. Magic Baking Powder
½ c. chopped mixed candied	½ tsp. salt
peels	
1 tsp. grated lemon rind	1 c. butter or Blue Bonnet
2¾ c. sifted pastry flour	Margarine
or 2½ c. sifted all-purpose flour	1¼ c. fine granulated sugar
	5 eggs

For the almond paste: Grate or finely mince almonds; mix in sugars, eggs and almond extract. Knead until putty-like, adding a little icing sugar if needed. Set aside.

For the cake: Combine currants, peels and lemon rind in a bowl. Sift flour, Magic Baking Powder and salt over fruit; mix well. Cream butter or margarine; gradually blend in sugar. Add eggs, 1 at a time, beating in well after each addition. Stir in flour mixture; combine well. Spread half of batter in a greased 9" square or 10" round cake pan at least 2" deep, lined in bottom with greased waxed paper. Roll out ½ of almond paste 1" smaller than pan and place over batter; cover with remaining batter. Bake in a slow oven (300°) about 1½ hrs. Stand cake in its pan on wire rack 10 mins.; turn out on rack, peel off paper, turn cake top-side up and allow to cool completely. Brush top of cake with egg white and top with remaining almond paste, rolled-out to fit cake. Decorate as desired.



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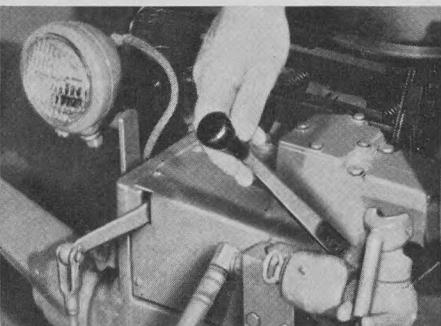
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COUNTRY GUIDE

Vol. 83, No. 4 — APRIL 1964

THE FARM MAGAZINE

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In This Issue

OUR COVER THIS MONTH

Those who have traveled up the Alaska Highway might recognize the animal on our cover this month. For most of the others it will be a stranger. Actually it's a Dall ram which along with the Rocky Mountain Goat are the only two all white hooved animals in North America.

The painting is by Clarence Tilleius of course who is well known to most of our readers for he has been contributing cover illustrations to the Guide for many years.

Tilleius reports that the Dall sheep ranges roughly from the Yukon-British Columbia border north into Alaska. It's strictly an animal of the mountains named for William Dall who discovered and identified it over three-quarters of a century ago. He reports that anyone traveling the Alaska Highway will likely see one of these as they travel along Sheep Mountain which is beyond Whitehorse. Tilleius made the sketches for this painting on a visit there last September and October and reports that the sheep are quite common on this mountain which overlooks Kluane Lake.

In addition to doing this painting for the Country Guide, Tilleius visited the area for the purpose of setting the stage for one more of a series of dioramas on which he has been working recently in the National Museum in Ottawa.

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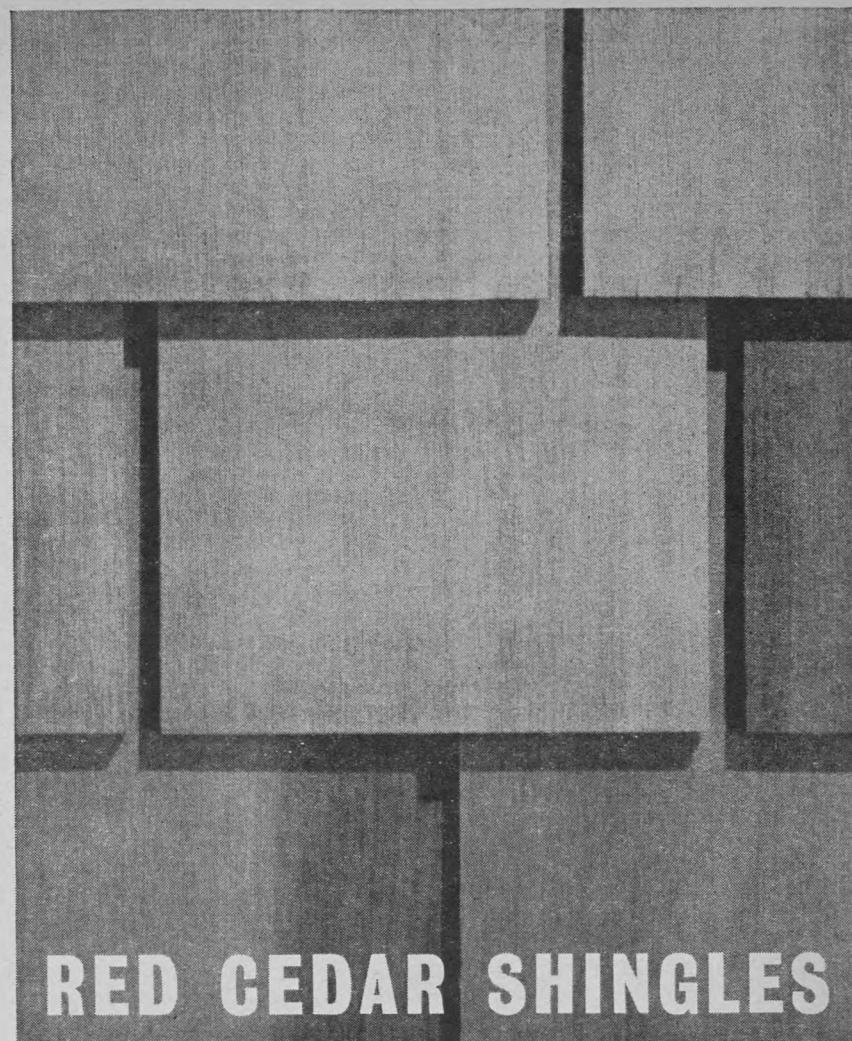
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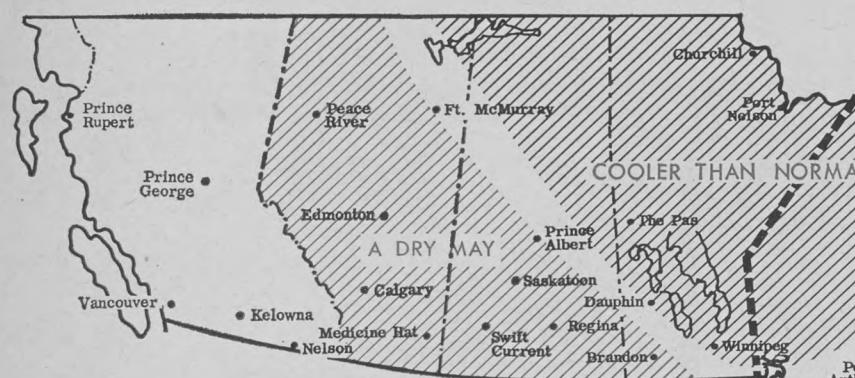
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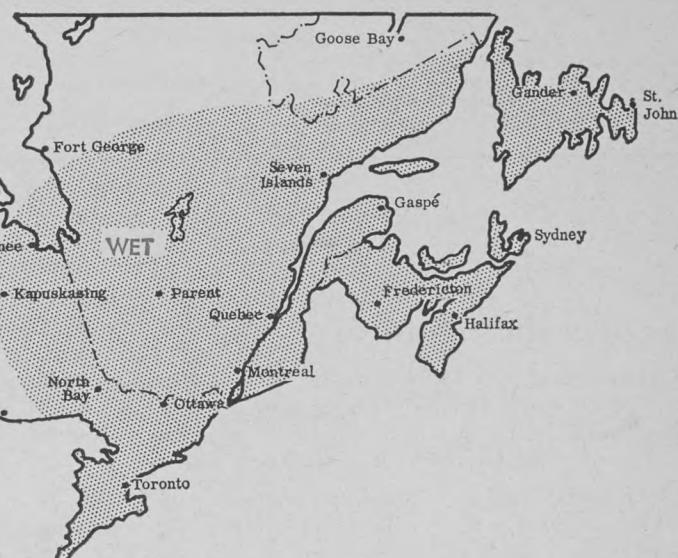
CITY OR TOWN _____

PROVINCE _____

Prepared by IRVING P. KRICK ASSOCIATES



MAY HIGHLIGHTS: Below normal temperatures are indicated except in southern Quebec and the Atlantic Provinces. The coolest weather is expected from Saskatchewan into western Ontario. It will be wet from Ontario eastward. Below normal moisture is expected in Alberta and Saskatchewan — very dry in the southern parts of these provinces.



MAY 1964

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

Alberta

Threatening on the 1st but precipitation if any will be light. Cooler in most areas on the 2nd. Continuing chilly with seasonable temperatures expected on most days after the 5th. General storminess on the 6th. Threatening again about the 8th. More cool air can be expected by the week end. This will be a very dry period in most areas. Main chance for moisture will be around the 14th. Cool during the opening days with rising temperatures expected around the 14th. Warmer conditions likely during the last half of the week with readings into the 70s and 80s. Threatening near the 18th with fairly general rains in prospect on the 20th-21st. Cool between the 27th and 29th. Nighttime temperatures will drop below freezing in most areas. Daytime readings will reach near seasonal levels with sunny skies. Showers indicated around the 25th.

Saskatchewan

Rain and snow with colder air moving in. Temperatures will drop on the 2nd. Lower temperatures on a couple of mornings with seasonable temperatures expected between the 5th and 8th. Between the 5th and 8th will also see a return of stormy weather. As storminess subsides more cold air will affect the province. A surge of cool air will make an appearance toward the week end. Main moisture is expected around the 15th. Showers will be common between the 18th and 20th. Day to day temperature changes will be minor the first part of the week. Near seasonal readings expected most days. Warmer by the week end. Showers will develop on the 24th, followed by a trend toward cooler weather. Cool conditions will linger through the 29th. Some scattered light showers will be a possibility on the 30th.

Manitoba

This will be a stormy period with rain and snow general throughout most areas. The trend will be toward colder weather between the 3rd and 5th. Showers are due on the 6th with mild weather during the remainder of the week. Further showers likely on the 9th. Some shower activity expected around the 12th-13th. Precipitation will be light and spotty. Cool air near the 11th and 15th will result in cooler than normal weather predominating during this period. Continuing cool through the first half of this week but warmer weather is due during the last few days. General rains are expected around the 18th-19th with sunny weather prevailing thereafter. A system moving south will bring cool air on the 26th. Scattered showers on the 24th and 25th. Seasonable temperatures between the 28th and 31st. Rain in southern areas on the 29th.

Ontario

A storm center moving across the province will bring moisture to many areas on the 2nd. As the storm moves eastward cool air will move in, maintaining its hold through the 7th. Some rain likely around the Great Lakes near the 7th. Milder weather by the 9th. It will continue mild the first couple of days with seasonal temperatures predominating during mid-week. Rain will develop around the 15th accompanied by a trend toward lower temperatures. Important rains expected around the 19th-20th and again at the week end. Some lower nighttime temperatures (near freezing in the south) are expected on a morning or two around the 21st. Rain will stop after the 24th. Cooler on the 26th and 27th. Threatening around the Great Lakes on the 29th. General rain. Daytime temperatures will reach the 70s after the 29th.

Quebec

Above seasonal temperatures are expected. Dry with minor threat of showers on the 2nd. This will be a rather wet week. A storm will bring general moisture on the 6th-7th followed by an influx of cooler air. Further storminess is due by the week end. Storminess will move eastward out of the province after the 10th allowing more cool air to settle in. Rain can be expected to develop again by the week end in most areas. Cool the first day or two with seasonal temperatures during mid-week. Rain will occur on a couple of days between the 20th and 22nd and again will be followed by lower temperatures. The last half of this week will be on the warm side. Some showers are likely around the 28th with more general rain expected to develop around the last day or two of the month.

Atlantic Provinces

Below normal temperatures on the 1st, warming on the 2nd. No precipitation is expected. Minor day-to-day temperature changes are forecast although it will turn cooler at the week end. Stormy with some local heavy moisture likely, especially between the 4th and 7th. Another important storm will affect most of the area between the 11th and 13th. It will be around the 12th and 13th. Further showers likely on the 16th. Lowest temperatures will occur at the beginning of the week with seasonable conditions (afternoon in the 60s) prevailing after the 19th. General are likely on the 22nd-23rd. Temperatures will rise to the 70s through most of the Atlantic Provinces between the 27th and 30th. A new storm out of New England will bring general rains on the 30th and 31st.

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37 HAY CONDITIONER Big new "slatted-rib" conditioner to crimp stems every inch. Full 8-foot swath. Hydraulic or manual control.

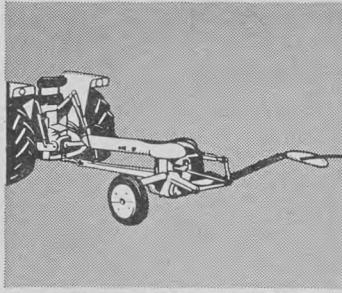
502 SELF-PROPELLED SWATHER Does 3 jobs at once—cuts, conditions and windrows in a single pass. Economically windrows grain. Can be converted to huge field sprayer with 57 foot coverage. Double-swath attachment available.

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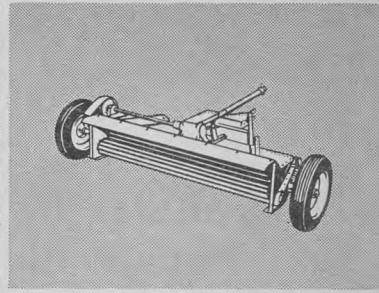
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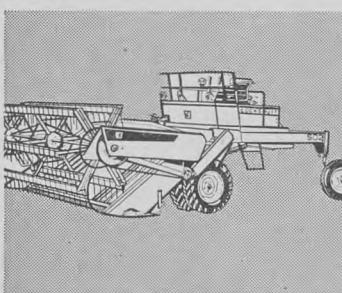
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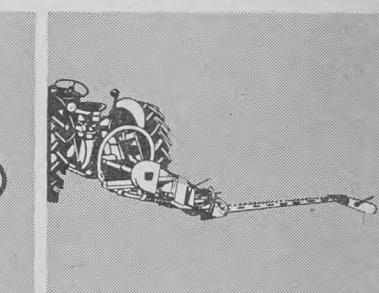
415 Trail-Type Mower



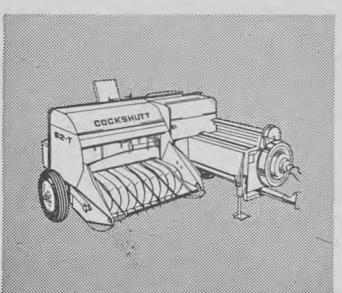
37 Hay Conditioner



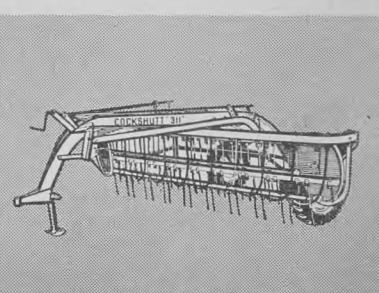
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Editorials

A Spur to the Swine Industry

IN CANADA'S RANCHING country, cattle-men often refer to themselves as livestock men, but without quite realizing it, they imply that hog producers are something else again. In doing it, they are reflecting a historic problem of the swine industry. Farmers generally have found little prestige or pride to be gained in raising hogs.

It's undoubtedly one reason why the swine industry has lagged behind the cattle industry, with its glamour, and the poultry industry with its great dynamism. Beef production has expanded in recent years, with hundreds of feedlots coming into existence across the country. Steers are being fed to high quality finish. Beef has established itself as the favorite meat of Canadian consumers. Meanwhile, the poultry meat industry has moved into the hands of specialists who have developed it until broilers and turkeys have become regular fare on the Canadian dinner table.

Not so with swine. Despite long-standing government programs such as rail grading, premium payments for quality carcasses, and Record of Performance testing for purebreds, little improvement has been made in the quality of hogs coming to market. One result has been that consumers have turned more

and more to other meats and growth of the swine industry has been slow.

Hog producers in Eastern Canada have expanded their output in recent years, but through the prairies, the pendulum has swung in the other direction. The West produced two-thirds of all the hogs marketed in this country in 1944, but this had dropped to one-third by last year.

In fact, in 1963, when swine production slumped on the prairies, imports of pork into Canada jumped to over \$12 million. Swine producers not only failed to take advantage of expanding world markets but they failed to meet domestic needs.

It's only one example, but it's a serious one, of how some branches of Canadian agriculture are failing to meet the opportunities of the times. As E. T. Banting of the Department of Industry, Ottawa, pointed out recently, Canada imported \$655 million worth of food and food products in 1963, and half of these were foods that could have been produced economically in Canada.

The question is, why, despite this country's great agricultural resources, has she failed to capitalize on these markets?

Well, in the case of hogs, at least, an attempt is being made to find an answer to the

question. The Canadian Federation of Agriculture is calling a National Hog Quality Conference of producers in Ottawa for April 28 and 29. Producers from right across the country will attend by invitation.

The conference will be planned so that participants can study all aspects of policy relating to hog quality—such things as grading, premiums, price differentials, breeding programs, extension, market development, research, and industry organization. It will look at the role of federal and provincial governments, producers, universities and business, in the hog quality picture. It will search for a sound policy approach to swine improvement.

There are grounds for expecting the conference to be successful too. It is known that in some areas of the world, and even in some parts of this country the swine industry is moving ahead rapidly.

There will be reports at the conference from officials of the Canada Department of Agriculture who recently visited Denmark and saw a swine industry in which it takes only 2.9 pounds of feed to make a pound of pork, compared to about 3.5 in Canada.

There will be reports of how several new swine breeds have been developed in the U.S. in recent years and are playing a role in that country's rapid improvement in hog quality. There will be appraisals of various provincial swine-improvement programs which are benefiting some regions of this country.

It is true that swine can turn feed grains into red meat more economically than can beef cattle, but nevertheless the swine industry has not kept pace in recent years.

We think this conference could be a spring-board from which Canada's swine industry could move to grasp the opportunities ahead. V

Troubles in the Market Place

THE FLUE-CURED TOBACCO industry is troubled! As a result of low bids and grading disputes, Ontario's tobacco auctions were temporarily closed this winter, and sales were only continued when both the Ontario and the Federal Governments refused to intervene or to grant further financial aid. The growers must now offer their unsold tobacco for sale or see it rot.

The malaise of tobacco farming is serious for those personally involved, but it has wider implications for it is an indicator of problems in the market place.

One of these problems was pointed up in a recent address by W. F. Thompson, to the Appraisal Institute of Canada. He stated: "Examples of the farmers' lack of information on the economic worth of land are shown on the tobacco land price increase of a few years ago and the present upsurge in certain Saskatchewan wheat land prices. Economically, a farmer can afford to pay about three times the long term gross income for wheat land. In 1963 farmers were bidding and buying on the basis of four times the 1963 bumper income which amounted to eight or ten times the long term average gross income."

The Tobacco Inquiry report in this issue (see page 16) has emphasized the same problem: "Capitalization of acreage rights into the cost of farms, and the inability to utilize all facilities to the maximum because of the restrictions on production, have resulted in pressure for higher selling prices for tobacco."

This raises the hoary problem of a board endeavoring to establish higher prices to meet

the high capitalization of their farms, despite surpluses and trading patterns established at the international level.

In Ontario some eighteen farm commodities are regulated by marketing boards and most of these boards have had a stabilizing influence. In contrast, a succession of proposed new plans have been rejected by producers. Now egg producers, apple growers and hog producers are placing more emphasis upon research and market development in their efforts to provide leadership to their industries.

Prof. R. G. Marshall, of the Ontario Agricultural College, in a paper prepared for a recent marketing conference, emphasized the current problems: "Producer marketing boards in Ontario are at the crossroads. On one hand, there appears to be no lack of support for extending the development marketing board activities into areas not now covered, but on the other, strange as it may seem, there are dissenting voices by those to whom the benefits of board programs are designed to accrue. In recent years, farmers have been more inclined to register disapproval than approval for proposed programs. And, perhaps more difficult to understand, even though over 70 per cent of the farmers of Ontario are members of one or more marketing boards—some with more than twenty years' standing—we still find a range in rural Ontario from nearly total acceptance to almost complete disapproval of the marketing board idea. Why has this occurred? Who is out of step—those who plan, promote, and direct marketing board programs or those who make the final decision at the ballot box? This is a soul-searching question with which organized agriculture must come to grips, not only if marketing boards are to undergo further development, but also if existing programs are to command the respect and appreciation that most deserve." V

End of a School Era

SELF-SUFFICIENCY and independence have long been the watchwords in rural areas, and in Ontario, virtually the last outpost of local autonomy has been the individual school district. This local autonomy has meant in many cases the single room school, which was excellent in its day but is now painfully inadequate.

For several decades there has been provision for voluntary consolidation and the formation of new central schools. Ontario's Minister of Education has now proposed several more far-reaching changes in legislation, which should result in farm children receiving their formal education in a better environment. They should, in fact, receive urban standards of education in rural surroundings.

Under this legislation, the township will become the smallest administrative unit. Nearly half of the province's school boards will disappear. The movement toward central schools, which has been encouraged by a more favorable grant structure, will be accelerated.

This concept which has long been accepted in some parts of Canada has belatedly come to Ontario. It will meet with some opposition but it is a sign of the times.

Farmers, by their attendance at county and provincial educational meetings in recent months, have clearly demonstrated their thirst for knowledge. It must be the same for young people. A better education is essential to them whether they stay on the farm or seek employment in commerce or industry.

The impending legislation provides the mechanics for that desired improvement. However, legislation in itself is not enough. The encouragement and interested vigilance of every parent and taxpayer is still essential for it to become effective. V

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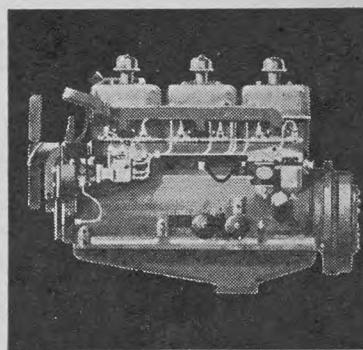
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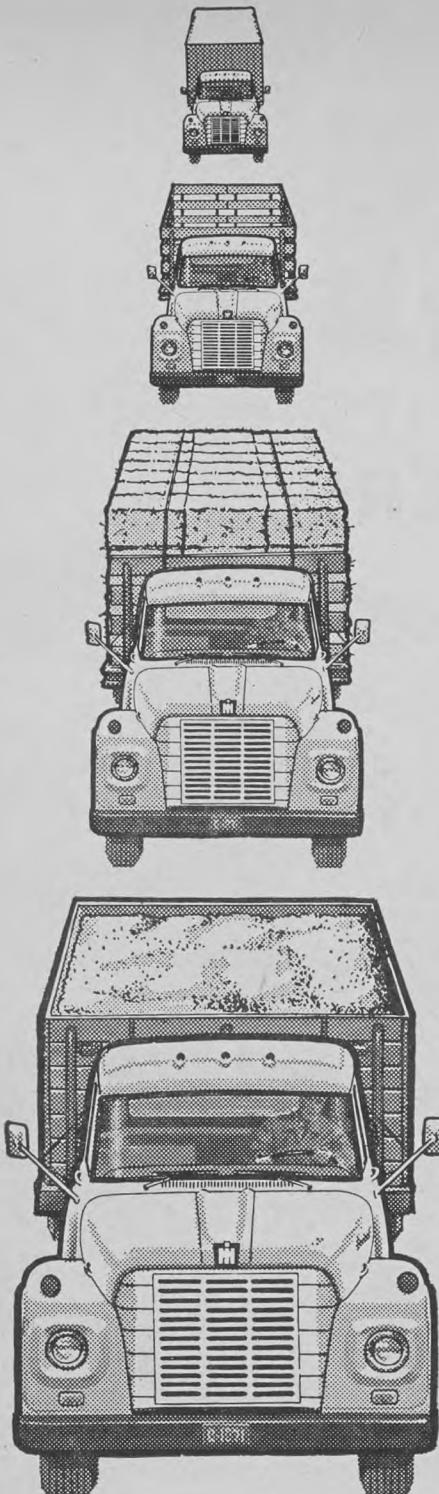
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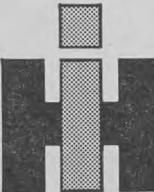


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GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

CANADIAN SPRING WHEAT ACREAGE is due for its seventh consecutive increase this year, possibly exceeding 28½ million acres. Saskatchewan and Manitoba summerfallow moisture reserves above average with Alberta a little below normal. Big exports mean an average crop would still not make supplies too unwieldy.

BARLEY EXPORTS to date plus the 16-million-bushel sale to China means more than doubling 1962-63 exports. Even so, prospects are for substantial carryover and farmers' plans indicate 6 per cent reduction in acreage.

OAT SUPPLIES substantial both on farms and in commercial position. Acreage likely to remain large as Prairie producers recognize importance of oat crop as backstop feed supply in case of drought.

CLAIMS FOR CORN productivity causing more farmers to swing to this crop. Another sizeable acreage increase is coming in Ontario, with Manitoba and Quebec farmers also showing interest. Corn productivity only achieved, however, when farmers pay close attention to variety and management.

FLAXSEED SUPPLIES are ample but even with this year's prices farmers like this cash crop. Looks like acreage will be up 10 per cent or more from last year but below earlier years.

RAPESEED PRICE and demand both continue good with markets in Orient lending strength. Appears to be one crop where substantial acreage increase will take place without endangering the market.

SOYBEAN PRICE PROSPECTS, while not so rosy as some thought last fall, are still good. Acreage of this crop will show little change from 1963.

POTATO PRICES continue low as supplies substantial and consumption just holding its own. Any increase in acreage can only give growers further reason for complaint in 1964. Some large-scale potato farming in the Prairies has brought stiff competition for producers on both the East and West Coast.

BROILER PRODUCTION continues its merry climb, even though prices are down from last year. No end of the increase is in sight as some 15 per cent more broiler-type eggs have gone into incubators in the first 3 months of the year than in 1963.

Agriculture Minister Harry Hays has announced that the price support for hogs will remain at \$23.65 per cwt. for grade A hogs during 1964. It will be on a deficiency payment basis and will apply to a maximum of 100 carcasses marketed by individual producers.

The Ontario Farm Machinery Advisory Board has warned farmers against salesmen selling purchasing agreements to farmers and others for \$169.50 by which it is supposed to be possible to obtain merchandise wholesale for a 10-year period. Since farm machinery companies and distributors have no connection with this, the Board advises farmers not to buy one of these agreements with the hope of obtaining farm machinery and equipment at wholesale or greatly reduced retail prices.

Saskatchewan's Bred Sow Assistance Policy has proved popular with farmers. By mid-March 1,200 applications covering 5,000 sows has been received. Applications were being received at the rate of about 200 per week. Purpose of the program is to increase and stabilize hog production.

New Brunswick Minister of Agriculture, Hon. J. Adrien Levesque, has appointed a Forage Committee to study all aspects of potential forage production in the province and recommend appropriate programs and demonstrations to assist farmers in reducing the high costs of livestock feed.

A five year bush clearing program intended to boost the acreage of land that can be used for pasture or tame forage production on lands in the Interlake and West Lake regions of Manitoba has been approved by the provincial government.

ARDA meetings have been held between Alberta government and Federal government officials and these resulted in an interim program being drawn up to cost more than 6 million dollars through 1965. The program will see planned land utilization, management of soil and crops, and conservation of water resources.

The index of farm prices of agricultural products declined from 244.7 in December to 242.9 in January. Potato prices rose but livestock and egg prices were lower. The index does not include the final payment on the 1962 western wheat crop.

As part of its continuing program to expand the sale of food products, the Ontario Government, in co-operation with several food processors, will participate in the Israeli International Trade Fair to be held in Tel Aviv June 16 to July 17. In making the announcement, Ontario's Minister of Agriculture, Hon. W. A. Stewart, stated that this show is directed to all of the Middle East and at least half of the African countries whose representatives will be attend-

ing the Fair. He said it is a wonderful opportunity to acquaint a large number of people with the quality and availability of Ontario food products.

According to the Dominion Bureau of Statistics, wheat supplies of the four major exporters (United States, Canada, Argentina, and Australia) are relatively unchanged from a year

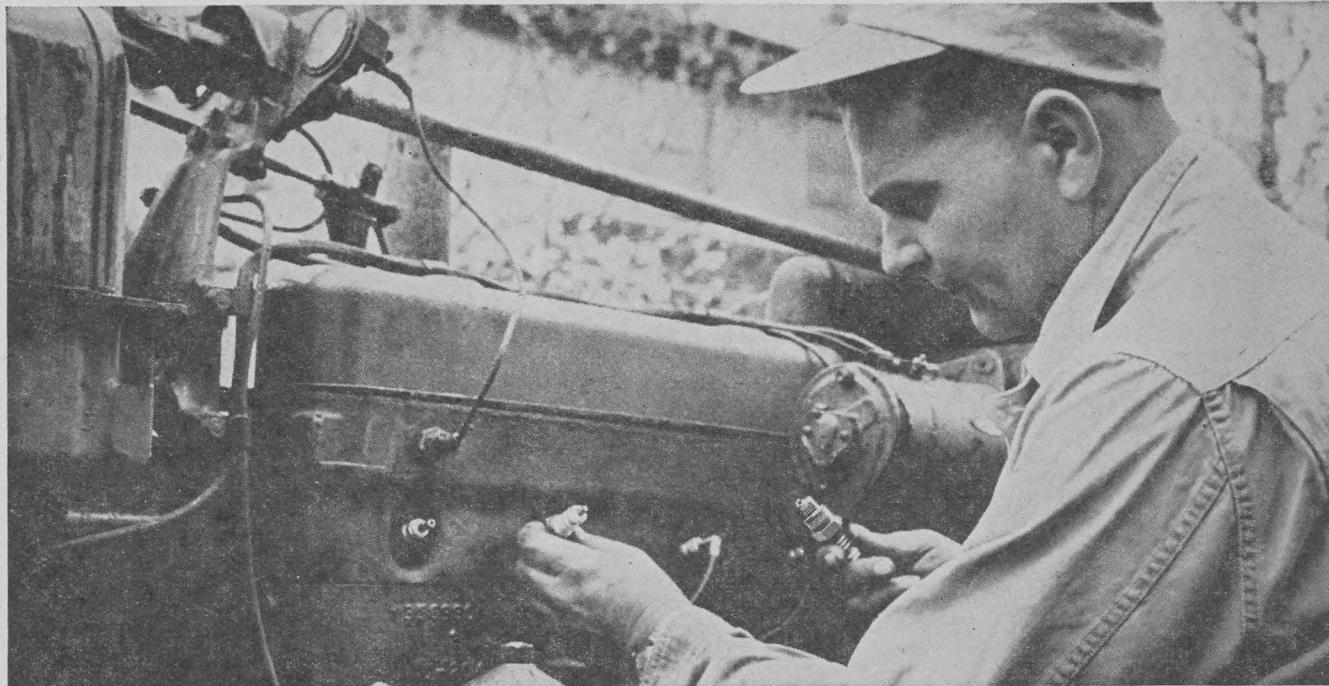
ago. At January 1, 1964, supplies for export and for carryover were 2,546,000,000 bushels, just about the same as a year ago.

Final statistics of the Ontario Department of Agriculture show that corn acreage in the province last year increased by 25 per cent over the year before. Indications are, according to Doug Parks, director

of the Soils and Crops Branch, that there will be a further increase of 10 per cent in planted acreage this year. This will mean that for the first time in history acreage of corn grown in Ontario will surpass the million acre mark.

Australia has just harvested a record 1963-64 wheat crop, estimated at 333.8 million bushels. ✓

Here: 5 fast ways for you to get more horsepower — more gas economy from your tractor



Recent studies by tractor engineers show that even a minimum tractor tune-up will restore an average 11.2 per cent of horsepower and improve gasoline economy by 13.3 per cent. Here's what the engineers recommend to you.

Even though your tractor *seems* to be operating all right, maintenance neglect takes a higher toll in lost power and wasted gasoline than you realize. And these losses result from a need for *minor* maintenance.

"Minor" Tune-Ups Studied

In arriving at the figures of 11.2 per cent loss in horsepower and 13.3 per cent loss in gasoline economy, the engineers made the following tune-up operations:

1. Adjust carburetor
2. Service air cleaner
3. Set timing
4. Adjust governor
5. Replace spark plugs

In some cases, points and condenser were also replaced. Of these five operations, spark plug replacement pays the biggest returns when a tune-up is needed.

Plugs Pay Off Fast

Tests show that replacing *spark plugs alone* can restore 6.7 per cent of horsepower and improve gasoline economy by 7.9 per cent. This was proved by the recent tune-up studies and in hundreds of "borderline" spark plug tractor tests made by agricultural colleges and by engineers over the past five years.

In these tests, all evidence points to the fact that the most economical time for replacing tractor spark plugs is every 250 operating hours. Since the average tractor operates about 600 hours a year, twice-a-year plug changes will meet the average tractor's need.

When Should You Tune-Up?

On the average, twice a year is the recommended interval. As the engineers point out, it is uneconomical to try to "stretch" the life of spark plugs. The losses in power and gasoline cost far more than a set of new Champions twice a year.

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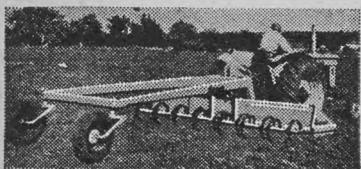
Front dump permits precision control of spreading—constant even flow.

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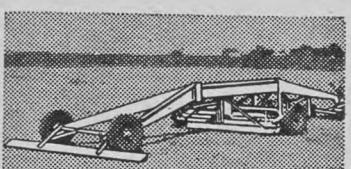
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LAND SMOOTHER

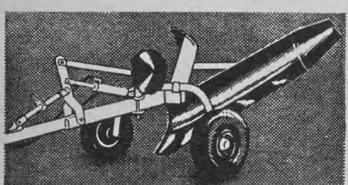


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Ask for further information and demonstration. We have the type of equipment you require and you will be surprised how low priced they are and how fast they pay for themselves.

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Farmer Student

Do Western Farmers Want a Hog Board?

by CLIFF FAULKNER

YOU CAN PICK UP one paper and read why western farmers want a compulsory hog marketing board, and another which claims they neither want a board nor need it. The truth of the matter is that some farmers favor the idea and some don't, which is about par for every idea ever espoused by the human race. Across the wind-swept plains the "pro" forces have been beating their tom-toms at a series of "educational" meetings, while the "antis" are mixing their war paint as they gird for a counterattack.

One of the best attended of such meetings took place recently at the CDA Research Station, Lacombe, Alta., where about 500 interested farmers showed up. It was a panel discussion, featuring Charles Kennedy, manager of the Alberta Stockyards Co., which owns both the Calgary and Lethbridge public stockyards; Ed Nelson, past president of the Farmers' Union of Alberta and chief co-ordinator of the Union's marketing board campaign; and Sten Berg, a producer of high quality hogs, and vice-president of the Western Hog Growers' Association. Moderator was Lawrence Henderson, a dairy farmer and director of the Lacombe FUA sub-district.

The Place of Stockyards

The opening speaker, Charles Kennedy, told how the stockyard company provided the place and facilities so buyer could meet seller.

"All of Canada's terminal markets provide the livestock owner with three basic services," Kennedy explained. "One, a daily market outlet for his stock on a regulated and supervised basis. Two, competitive bidding and fair trading, so he will get the highest possible returns. And three, cash on the line for what is sold, with assurance he will get full payment for accurate weights (over \$56 million cash paid out at Calgary last year).

"As for the packer-buyer," he continued, "the market provides him with a steady source of killing material. And it gives the farmer, rancher or feeder a regular source of replacement stock."

As far as compulsory marketing boards are concerned, he doesn't think much of them. "Any form of compulsion in livestock marketing, shored up by government legislation, is to me a complete negation of the free enterprise philosophy of our Western livestock producer," he said.

"I'm not going to suggest there isn't a hog marketing problem in Alberta," he went on. "You wouldn't be here tonight if there wasn't a problem. But you and I both know that the only hog prices officially quoted are for those hogs sold on the terminal markets. We also know these hogs are less than 7 per cent of total Alberta production. Most of the hogs sold are paid for at a price established by too few and therefore cannot be a reflection of true value.

"We on the public markets submit that we have developed sound marketing procedures for selling cattle. We contend that the same competitive marketing procedures are available for hogs with possibly a few special features added. Hogs assembled at country points by co-operative shipping associations have already been sold by auction at the Calgary yards. It is not unrealistic to suggest that this practice could be extended to include load lots right at home in the farmer's yard," he concluded.

The Case for Boards

Ed Nelson dealt with this business of "freedom of choice," which is the main plank in the platform of those who oppose compulsory marketing boards.

"Just what is meant by freedom?" he wanted to know. "I have the freedom to starve to death if I want to.

"I don't like to see farmers pushed around either," he agreed. "But it's easier to push them individually than collectively."

Companies base their production on two factors: the need for the service or goods they sell, and the existence of a good sales agency. Because farmers have been slow to grasp these two important factors, they have never been able to maintain a profit position.

"Only two groups in North America have had any real success in this," he said. "These are the orange growers of California and the wheat producers of the Canadian prairies. Other successes, but on a much smaller scale, are the fluid milk producers, the fruit growers of B.C. and the hog growers of Ontario.

"Strangely enough," he added, "the real strength of these agencies lies in the fact they have control of the product they sell. One only needs to look at how the Canadian Wheat Board managed to maintain a constant price while under the severe pressures of one of the longest periods of surplus production in our history."

To show the need for absolute product control, Nelson cited how pioneer wheat producers had formed a successful service and sales agency in the United Grain Growers Ltd. But in spite of all its efforts, even to buying a seat on the Winnipeg Grain Exchange, it was unable to influence the price of grain to any degree. In 1939, a voluntary Wheat Board went into operation, but it failed because farmers sold to the Board only when the price was low. They sold privately when the price was high. Birth of the Canadian Wheat Board in 1945, with its control of all commercial sales, brought the first real stability to the industry.

A HOG BOARD WOULD SELL every slaughter hog produced in Alberta, providing it was fit for slaughter and delivered to a licensed

(Please turn to page 70)



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And with the dependable MF 21 Bale Thrower, you can cut your man-power needs in half. Ask how you can save by buying on the low-cost MF Time Payment Plan. Massey-Ferguson Limited, Toronto, Ontario.

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Farmer-delegates get their opinions directly to President A. M. Runciman at U.G.G. Annual Meetings.

U.G.G. Farmers Agree on Policy: Self-Help, No 'Poor-Mouthing'

It's true that at this year's Annual Meeting they voted *against* increasing the scale of patronage dividends. They decided to spend the extra money to expand and improve United Grain Growers' services and help *all* farmers in the West.

They set a policy against "poor-mouthing." Against the concept that city people should feel *sorry* for farmers because they have problems. The long-run hope of this approach depends on farmers being unsuccessful. At U.G.G. meetings, farmers are more concerned with things their company can do to show the Canadian public *their stake* in a healthy, efficient and — yes — prosperous agriculture.

They feel it's important that governments and housewives *understand* that anytime a farmer is hindered from producing grain and meat efficiently, the cost of food will be higher than it needs to be. Carefully thought-out briefs and vigorous heads-up representation will do the job.

Are these 56,000 U.G.G. owners so different?

Maybe they act with such a strong sense of responsibility because they know they are in full control. Only farmers can buy U.G.G.'s membership shares. You'll find only farmers at U.G.G. Local Board meetings. (They get one vote each.) Only farmers can be elected as delegates to the Annual Meeting, U.G.G.'s parliament. Here these farmer-delegates decide U.G.G. policy and choose the directors who will carry out that policy.

Wise decisions by your neighbors — the farmers who control United Grain Growers — can mean plenty of important benefits for all farmers. They speak for you.

There are some traditions to guide them. For example, when farmers first started U.G.G. back in 1906, they aimed to correct certain abuses in grading, weighing and pricing at country elevators. First they asked for government operation of some elevators. It was tried, but didn't work.

In 1912, U.G.G. farmers started operating their own elevators. Nobody thought farmers could succeed in that business. But

U.G.G.'s elevator system has been a success right from the first day. Honest weights, fair grades, top prices were wanted by farmers.

Prices went up, grading became fairer, and weights more honest at all the other elevators, too.

That was when U.G.G. farmers learned that the best thing they can do to help themselves is to build effective Farmers' Company competition in the grain business. They know all farmers benefit — even when U.G.G. competes with other co-operatives.

And so the farmers who own and control United Grain Growers are carefully expanding their Company. They're building the most modern elevators in Canada at points like Brandon, Moose Jaw, Biggar, Rosetown, Warner, Bentley, Manning . . .

Haul to the Farmers' Company that's on the move. You will keep it strong and prepared to do the things that a big successful company can do to help farmers more.

And if you've a mind to join 56,000 farmers who work to solve their own problems — and yours — you're welcome to become a member of United Grain Growers. Total membership went up by 769 farmers in 1963. All it takes is being a farmer and a desire to get things done the way you want them done.

**United
Grain
Growers**

The Farmers' Company

The LACOMBE— It's Here to Stay

You don't have to buy a Lacombe pig in a poke because selective registration tells you something about its family history

by
CLIFF FAULKNER
Field Editor

WHEN YOUR LEGS are short and stubby, you talk with a grunt and your ears flop over your face, somebody is bound to say unkind things about you. If you also tread on a few toes it doesn't help the situation much either. So it is with the Lacombe pig in this 7th year since it was first accepted for breed registration. Every once in awhile somebody wonders (but not too loudly) if it paid us to develop a pig of our own when there were already several fine breeds to choose from.

If criticism is muted it is chiefly because the Lacombe hasn't left its competition with much of a hoof to stand on. For one thing, a boar can't even be registered unless he comes from a litter, or parents, which have met the official R.O.P. standards for carcass quality, rate of gain and feed efficiency. This is called "selective registration." Buyers thus know a good deal about this animal before they plunk their money down. This has forced other breeds to increase their R.O.P. testing. It has also probably doubled the paper work of the Canada Department of Agriculture's Production and Marketing Branch. But if any toes have been tenderized in the process, think of the shot in the arm to hog quality improvement!

A combination of Berkshire, Danish Landrace and Chester White breeding, the Lacombe is a white, bacon-type hog with flop ears. Mature boars weigh from 590 to 880 lb. and sows from 490 to 790 lb. The animals are docile, easy feeders and the females are good mothers. At first glance they resemble the Landrace in color and general appearance. But they are said to have more substance and stronger feet than the Danish breed.

In a land where much time and effort is wasted on committees and commissions, the Lacombe should have wound up in a pigeon hole instead of a pig pen, for it was designed by a committee (*The Country Guide*, May 1955). But this was a special committee with a definite goal of improving the quality and quantity of Canadian bacon production. They wanted a white hog which would give a shot of hybrid vigor when crossed with Canada's dominant breed, the Yorkshire. For the female line, the committee chose the Berkshire, with its fullness of ham and good milking capacity. The leanness and white color were obtained from five boars of a U.S.-developed, Landrace-Chester White line, and from two purebred Danish Landrace boars.

The Lacombe must rate as one of the most tested breeds in the country. In 1952 the herd was closed to all outside stock and a program of selective inbreeding began. It was based on: (1) good litter size, (2) good weaning weights; (3) good growth rate; (4) carcass quality; and, (5) feed efficiency. From 1954 to 1957, 70 La-

combe boars were placed with farmers to see how well the breed would cross under commercial conditions. Five boars were also placed at the University of Alberta for use in their cross-breeding studies.

The farm test was divided into two distinct trials. One, a *comparative* test, saw Lacombe boars evaluated in direct comparison with a control group of litters sired by boars currently on each farm. In the second trial, called a *field* test, boars were placed in herds throughout Alberta to see how the breed performed under a wide variety of range conditions.

Although the results varied with the quality of management found on each farm, they showed that the Lacombe was a better-than-average performer. Top-cross hybrids sired by Lacombe boars averaged 2 pounds heavier than the control pigs at weaning, and reached market weight 11.6 days earlier. Hybrid superiority didn't show up in the size of the litter at birth, or in the percentage of A carcasses. But it did show up in a superior rate of growth, especially on the better managed farms. Most of the farmers who hosted these boars felt the Lacombe and its crossbred offspring were equal or superior to their own stock.

There were extensive feeding tests too. Canadians wanted a pig that would produce a good carcass when self-fed—an important consideration to keep labor costs down. Consequently, self-feeders were used for all tests. It was also considered important that this new breed make economical use of pasture. All gilts and young boars were raised on pasture with a minimum of feed. Only those which grew well under this form of management were kept for breeding. Special attention was given to the number of teats. Fourteen normal, well-spaced nipples was set as the minimum requirement.

Although the specifications for the Lacombe hog were conceived by a committee, the end product was the "baby" of Jack Stothart, Lacombe Research Station superintendent, and Dr. Howard Fredeen, head of the station's livestock research department. Before any registration papers were issued, the two founders of the breed laid down some pretty tough regulations. These requirements have been adopted completely by the Canadian Lacombe Breeders' Association.

In brief, here are the regulations: Gilts must be from registered parents, be sound of foot and limb, free from abnormalities and show the breed type. Boars must be from a litter, or from parents, that have reached a definite standard *under test* on carcass quality, rate of gain and feed efficiency.

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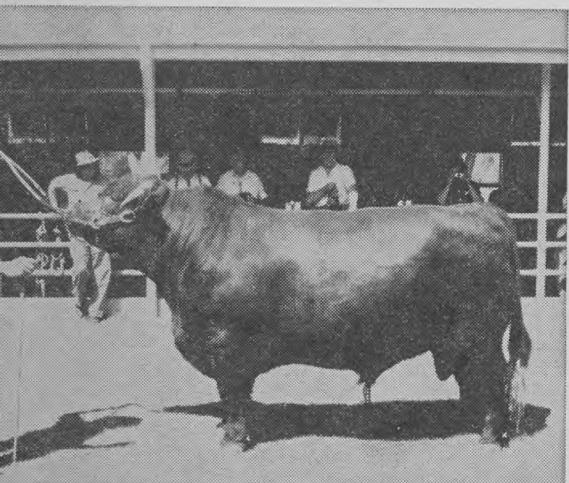


Six-month-old boars at Lacombe Research Station where the breed was developed.

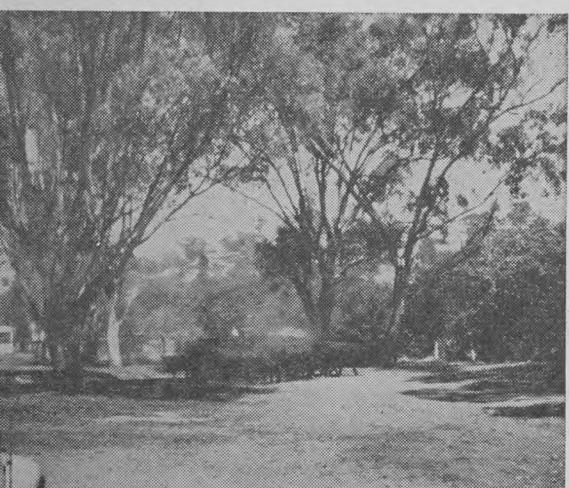
[CDA photo]

"Down Under" Beef—a

Frank Jacobs, editor of Canadian Cattlemen, is just back from a beef tour of Australia and New Zealand. He explains why North American cattlemen have been so concerned recently about increasing imports of beef from "Down Under" and the implications for us



Canadian Cattlemen photos
There is quality beef in Australia. Here is a show bull from an estate south of Wagga Wagga



A mob is mustered at a station near Canberra. There are many gum tree varieties along the coast

THE MOST-TALKED ABOUT news in the beef industry the past 6 months has been Down Under imports into North America. For the American cattleman, these imports had been a slowly festering but not-too-painful boil for many years. Expert economists whom he hired told him that these imports actually did him good—kept people eating hamburger and boloney instead of fish and chicken. His government told him the same thing. And for years this was true. American cattlemen were on an increased-production kick—holding back cows and heifer calves with not too much of their turn-out going into the hamburger trade. So, Aussie and En Zed beef filled a real need and didn't hurt prices very much.

And then the boil came to a head. Americans found they had too many cows, too many calves, too many fat steers and too many of these were too heavy. Their prices broke to the lowest level since before the boom of 1951. Meanwhile, Down Under imports had increased from around 4 per cent of U.S. total slaughter some half dozen years ago, to 14 per cent in 1963. United States cattlemen blamed imports, but the USDA said, no, it's just too much domestic production. Their economists figured a recent price drop of \$3.70 could be attributed to the following villains in these amounts: broilers, 20¢; imports, 50¢; and the oversupply of top-grade cattle, \$3. Naturally enough, American stockmen don't agree. They maintain that imports have had a "ruinous effect on our prices."

For years the American National Cattlemen's Association—the U.S. beef producer's Big Daddy—had argued and lobbied for either higher tariffs against beef and cattle imports and/or restrictive quotas, or a complete ban. They didn't really expect the U.S. State Department to accede to their request, because they realized that their country had committed itself to expansion of global trade. Neither did they want to get caught short.

ASK REASONABLE QUOTAS

But they were. Last December a Congressional Trade Committee came up with the suggestion that all tariffs on all meat imports be lifted! Immediately, the American cowboy had to change

horses—his national association abandoned the higher-tariff approach and asked, instead, for the establishment of "reasonable quotas" on Down Under importations.

Meanwhile, American cattlemen had sent groups of their leaders to both New Zealand and Australia to study their production systems and potentialities at first hand; and a similar group had come up to Canada to find out how much damage Canadians were doing to the American beef market.

The Canadian-tour group, under then A.N.C.A. Vice-president Brooks Keogh of South Dakota, had fire in their eyes when they crossed the 49th, but after they saw what production problems the Canadian cattleman was up against—long winters and high production costs—Mr. Keogh said, "We're damn sissies if we can't stand that kind of competition."

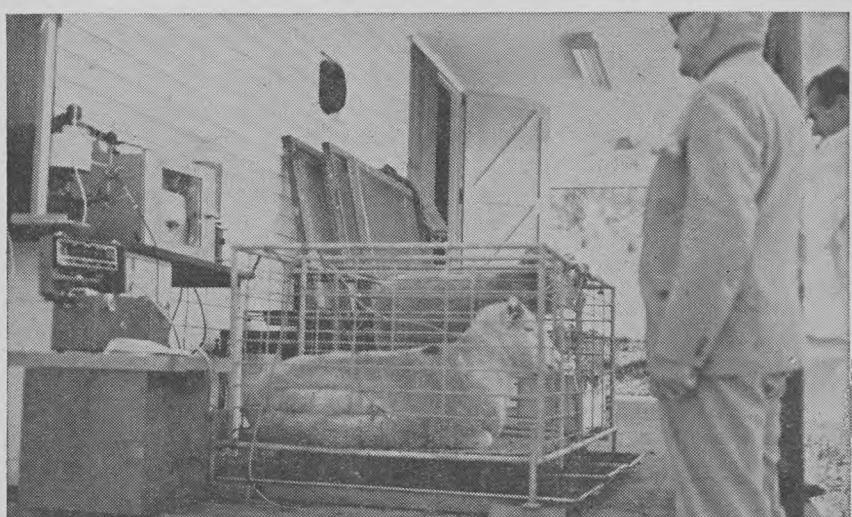
When the boys got back from the Antipodes they had a different story to tell. They talked of calf-to-killing steer costs of \$6.50; of leases running to hundreds of thousands of acres which could be obtained for rental of \$500 yearly; of an industry expanding as fast as it could to an apparently illimitable potential. They were worried. They also told of meeting with New Zealanders who were "most British in their attitude and manner, and in their negotiations"—in short, not willing to slow down their exports to the land of the shining gold mountain. They told of Aussies who were not nearly so British—who, in fact, were much like Americans—who were willing to negotiate, but who held most of the trump cards. The Aussies knew that they were important to Uncle Sam, both as buyers of U.S. goods and also as the far southeastern outpost of democracy.

A FAR-WORSE SITUATION

Upshot of all the travelin' and talkin' was the establishment by the U.S. Government of a quota system allowing Australia and New Zealand, for 1964, the average volume of their 1962 and 1963 export. This was a far-worse situation than the American cattlemen had hoped for—they had wanted the quota based on earlier years, when imports were much smaller. Not only are the



Gordon Munro, master of "Keera," a complex of holdings running 40,000 sheep and 10,000 cattle 300 miles northwest of Sydney. Elevation is 4,000 ft.



Dr. Wright, Chancellor of the University of Armidale and experimental ewe. University has pastoral research program, is reputed for its animal physiology

Threat to Our Market?

quotas based on high-import years, but they also provide a 3.7 per cent growth rate, on the assumption that the American market is expanding at that rate. For example the Australian red meat quota to U.S. for 1964 is 542 million lb. (equivalent to about one million cattle), but rises to 582 million lb. by 1966, when the whole situation will be reviewed. The New Zealand quota, covering beef and veal only, is 231 million lb. in 1964, rising to 248 million by 1966.

Canadian cattlemen have been watching this development with tremendous interest, because the American market is the biggest single factor in determining Canadian prices. We, too, have been importing from Down Under—the equivalent of 41,000 cattle last year—about half each from Australia and New Zealand—but the figure was 66,000 head in 1962, the high year. These imports have been running around 2 per cent of our total slaughter, or about equal to Nova Scotia's production. From New Zealand it's been an "alf-and-'alf deal" between manufacturing and block beef. But from Australia the fraction has been four-to-one in favor of boneless (manufacturing) beef.

Canadians have not worried very much about Down Under importations because they have never amounted to a significant proportion of our markets. From time to time, supermarket promotions—in which New Zealand beef has been advertised as "Canada Choice"—have made some of us mad, but the trade isn't a big thing either to the New Zealanders or ourselves. On the other hand, if we watch the sharp increase to the U.S., we wonder what might happen here if the American price eased a little further, or if our dollar strengthened—both of which conjectures are real possibilities.

With this in the back of my mind, I led a Canadian Pacific Airlines tour to New Zealand and Australia last January. Here is what I learned.

WHY SHEEP, NOT BEEF?

IN NEW ZEALAND beef cattle have been raised for many years, mainly to "top off" the rough grazing, so the sheep could graze more effectively. To understand why the New Zealander raises so many sheep—well over 50 million of them—here's the comparison between a production of five ewes versus one cow.

Five ewes eat about the same amount of grass in a year as does one cow. The five ewes will produce 55 lb. of wool, which this year will sell for 75¢ a lb. for a cash return of \$40.75. The same five ewes will produce at least six lambs which on good country can be sold off the ewes

to yield 37-lb. carcasses at 19¢ a lb. This brings the grazier another \$42 an acre for a total of \$82 per acre.

On the other hand his beef cow will produce a 400-lb. calf worth about \$60 if the beef trade is geared to U.S. export, but only \$45 if the price is being set by the Northern European market. Consequently, the New Zealander is not going to raise any more beef cattle than he can help—just enough to literally over-graze the range, so the sheep can make better use of it. But if the price of wool were to drop again (just a few years back it was worth only about 35¢) and if he could sell all his excess cattle in San Francisco, he would take another look at beef cattle.

The new Zealander has pretty well decided what breeds of livestock he likes. Practically all the beef cattle are Angus, the sheep Romneys, and the dairy stock are Jerseys.

AUSTRALIA'S POTENTIAL

Fourteen hundred miles across the Tasman Sea from New Zealand lies the subcontinent of Australia, a country where it is as difficult and as foolish to generalize about agriculture as it is in North America. In both Australia and New Zealand, aerial fertilization with phosphates has literally saved the meat industry. New Zealand fertilizes 9 million of its total 40 million acres of farmland every year with phosphate, and the practice is rapidly expanding in Australia. In much of the traditional pastoral regions of New South Wales and Victoria, aerial fertilization, combined with the sowing of clovers, has increased carrying capacity at least threefold.

Impetus to pasture development came at the end of World War II, when Britain turned over some 40-odd million lb. to the Australian meat industry as a sort of bonus for having paid the Aussies too little for meat during the war. The Australian government itself contributed 50 million lb. to pastoral development, and the country entered into a long-term agreement with Britain with a guaranteed floor price. Under these conditions both the sheep and cattle industries boomed.

Then, at the expiration of the British agreement, the Australian found that American prices—which had been in a slump from 1952 to 1957—were rising in a spectacular fashion. He wasted no time mourning his loss of the British trade, but quickly became enamored of, and began working for, the Yankee dollar. As long as the dollars keep coming, he'll send more and more beef to America. V



Land here carries a cow, her calf, and 6 ewes per acre a year plus 1 fattening steer 3-4 months



Aberdeen-Angus in the foothills of South Island. Land carries 4 ewes and 1 cow to acre in summer



New Zealand agriculture evolves around sheep. Romney stud rams like these maintain lamb size, heavy wool clip. It is almost impossible to overgraze



Alliance Freezing Works packing house processes 18,500 lambs per day for export. Staff members talk with Mr. and Mrs. M. McDonald of Sylvan Lake, Alta.



Smoke and Fire in Tobacco

**Tobacco accounts for almost 10 per cent of Ontario's farm income.
It has been virtually a "closed shop" industry, but the explosive Stinson Report
recommends gradual removal of production controls**

IN LATE 1962 the Ontario Government set up "The Ontario Flue-Cured Tobacco Industry Inquiry Committee." The Committee was a strong one and enjoyed wide powers. Dr. Ford Stinson, chairman, had extensive experience in all phases of tobacco in Canada, the U.S. and Southern Rhodesia; A. C. Ashforth has been a prominent figure in finance and trade while Lawrence Kerr is one of the province's most successful farmers.

The "Stinson Report" turned out to be more of an explosion than a report. It is a comprehensive and well-documented appraisal of a troubled industry. Here are some of the highlights of the report.

There are about 4,500 farms in Ontario with rights to produce flue-cured tobacco. This is less than 4 per cent of commercial farms in the province. Approximately \$90,000,000 or about 9.5 per cent of Ontario farm cash income in 1962 was derived from flue-cured tobacco, a percentage exceeded only by income from cattle, dairy products and hogs, for which there are far more producers. Flue-cured acreage in 1962 was only about 1.5 per cent of all field crop acreage in the province while farm value of the tobacco produced was 20 per cent of the value of all field crops. Farm value per acre produced was more than double that of any other major field crop. There can be no question of the importance of flue-cured production to the economy of Ontario agriculture, nor of the fact that it has prospered in the past 30 years.

As late as 1928, Canadian flue-cured tobacco consumption was two and one-half times domestic production. By 1943 the domestic content of Canadian cigarettes had risen to more than 99 per cent.

Prior to 1934, producers of flue-cured tobacco bargained with buyers independently of each other and were generally without knowledge concerning conditions of the market or of the value of their crops in relation to others. On the other hand, buyers were better informed and, as production rose, could select and buy the best crops first. Under such conditions, suspicion of market manipulation and buyer discrimination grew, particularly among those who failed to sell their crops.

In the period from 1934 through 1956 a minimum average crop price was negotiated by buyer and grower representatives. Growers bargained individually with buyers for the sale of their entire crops but the average price per pound paid for all crops could not be less than the established minimum average price.

Following a period of bitter controversy the Ontario Flue-cured Tobacco Growers Marketing Board was created in 1957 under the overall

provisions of the Ontario Farm Products Marketing Act. When the new Board assumed office it immediately adopted the general technique of production control, first tried in 1934.

While it is not uncommon for elected bodies to be subjected to severe and continuing criticism, the intensity of that directed at the Board in recent years does indicate producers' dissatisfaction with it.

On the other hand, the Board has achieved many worthwhile objectives, such as construction of exchanges, establishment of the auction system, development of a grading system and many others.

It would appear that employees of the Board have not always been given timely policy direction and that there has been some interference by Board members in routine affairs which could well be carried out by the employees. It also appears that the discussion of Board affairs in general meetings and committee meetings is often repetitious and inconclusive. These situations tend to give rise to frustrating delays and inefficiencies in the administration of Board operations.

The position of the individual tobacco grower is relatively weak as compared with that of the buyer of his product because there are a large number of small producers dealing with a small number of buyers. There has been, and unquestionably will continue to be, a need for an association of tobacco growers to provide a powerful voice for individual producers. In the last 6 years, the Board has provided this voice and in the process has been subjected to widespread criticism. Considerable criticism has come from growers themselves although the members of the board have been elected by the growers. It also appears that many of the growers have been ready to take advantage of any loophole left by the Board in its attempt to administer production control and marketing of tobacco.

The Stinson Report quotes from the minutes of the Board to indicate that, even if the quota system could be considered sound and equitable, the establishing of the basic quota by the Producer Board is, at best, a haphazard exercise. In the opinion of the Committee, determination of quotas by the Board has been considerably less than successful in achieving production stabilization and further it has been a limiting factor in the expansion of export markets. By 1963 one-half acre of accepted tobacco acreage lay idle for every one planted.

by PETER LEWINGTON

Field Editor

It is clear that the number of basic marketable acres attached to a tobacco farm has been a major determining factor in its sale value. Without rights, the owner cannot produce tobacco or benefit from production control and pricing programs. In the course of its inquiries, varying producer estimates of the value of an acre of rights were expressed to the Committee, ranging in the extreme from no value to \$3,000.

The Committee recognizes that over a period of 30 years the acreage rights system has become firmly entrenched in the Ontario flue-cured tobacco industry. Many growers have purchased farms during this period and, through capitalization of the acreage rights, have had to pay in advance for the benefits expected from the production control system. It is recognized that immediate complete withdrawal of production control might give rise to chaotic conditions in the industry. It recommends that a withdrawal program be instituted whereby over a 5-year period production controls would be eliminated.

On the abandonment of production controls at the end of the transitional period, the marketing of tobacco in Ontario would be on the basis of supply and demand.

The Committee considers that the long run interests of the industry and the general public will be best served if Ontario tobacco prices find their own levels in an open market. However, the Committee is sympathetic to the needs and desires of tobacco producers for stability and feels that this is in the public interest.

The Ontario flue-cured tobacco industry as a whole has benefited through the establishment of the auction system of selling tobacco. While improvements should be made in the mechanics of the system, most of the undesirable conditions which characterized the barn buying system have been removed. Growers are now in a better position to obtain information concerning the market and the relative value of their product. They are able to offer their tobacco to all buyers simultaneously in an orderly, impersonal way. The grower has been relieved of the pressure of selling his entire crop to one buyer, without knowledge of its true worth and in the fear of the consequences of refusing an offer.

From the conflicting evidence and interests the Committee makes several recommendations:

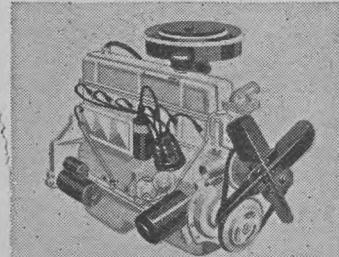
- The most controversial is that production control for the flue-cured tobacco industry of

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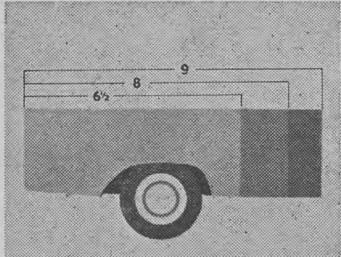
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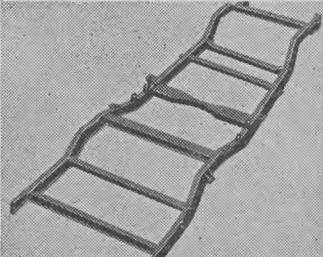
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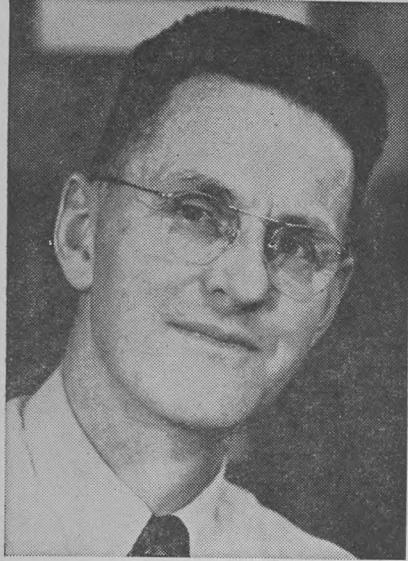
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Dr. Jim Marshall

The Ivory Tower Is Overcrowded

**One of Canada's most successful practical research men calls
for more applied research and more interest from farmers**

by JIM MARSHALL

SOMETHING IS VERY WRONG with agricultural research in Canada and the penalty will be paid by Canadian agriculture and each individual farmer. Firstly, the pendulum has swung too far in favor of pure research. This swing is at the expense of the practical or applied research of immediate benefit to the farmer. Secondly, the farmer has lost touch with the kind of research being done.

As an art, farming is in the hands of the farmer himself, and can be learned from experience in the doing. As a science it is in the hands of people about whose business the farmer knows little or nothing. These people are the agricultural scientists. And whether the farmer knows it or not his success ultimately depends as much on what the agricultural scientists do, and how they do it, as on what he does himself.

So the farmers have had little to say about the manner in which agricultural science is conducted! That's understandable; it's also unfortunate. It's understandable because, unlike most other forms of scientific research, agricultural research is not financed by those on whose behalf it is conducted. It's unfortunate because the aims of those who direct or perform the research may not be the aims of the farmer.

Agriculture cannot function efficiently without scientific research; on the other hand research cannot work efficiently unless it is close to the farmer.

Agricultural science is the most intricate of all the sciences, (the Russians, it seems, are beginning to find that out), because it involves life. It involves many other sciences too. Indeed, so complex is agricultural science that the whole tends to become submerged in its parts. Right there is the cause of a present-day weakness in Canadian agriculture—a condition in which the "research" in agricultural research becomes an end in itself; research for its own sake—not for the farmer.

MUCK, MANURE AND MONOTONY

It may surprise the man on the land to know that many of the agricultural scientists, who presumably are employed on his behalf, are city or townspeople who know next to nothing of life on the farm. To them farming means muck, manure and monotony. They may pay respect to the scientific side of their calling while stepping gingerly around the agricultural side.

There are two kinds of science. On the one hand is pure, or basic, science. That's the long-haired kind. On the other hand is applied science, or what might be called the science of the market place. It is concerned with commercial development—the practical application of new ideas.

In pure science you may work at what interests you; in applied science you work at what interests someone else, although it probably interests you too. Perhaps the chief difference between the two

branches can be spelled out in one word—money. Applied science is aimed directly at financial profit, as a rule pure science isn't. Because of that distinction there is a tendency among non-scientists (and among theoretical scientists) to think of the theoretical scientist as a more clever fellow, a rarer bird, in fact, than his money-grubbing opposite number in applied science. This means that the very men who are best fitted to assist the farmer get siphoned off to ivory towers and may be heard of no more.

Since laboratory research generally earns higher recognition in official circles than field research, the scientist dons a white laboratory coat. Thus he climbs to the upper reaches of his calling, and farming and farmers recede into the background.

TOO MUCH THEORY

The outcome of this trend is that Canada's agricultural science becomes increasingly theoretical. As it withdraws into the laboratory it generates a brighter glow in international science; but more and more it loses touch with the economic realities of life on the land. And that's not good for the farmer.

Modern agriculture needs a vast amount of laboratory research. But it's not enough to solve a problem in the laboratory. As often as not, what works in the laboratory won't work on the farm. The solution must be practical; it has to be made available to the farmer, and it has to be so convincingly demonstrated that the farmer will use it if it's to his advantage. That's where applied research takes over.

To do his job effectively the applied scientist has to know the farm side of a problem as well as the research side. He must know what is afoot in both basic and applied research. He must keep in touch with the world literature in his field of study. The wider his knowledge of foreign languages is the better. He should never be satisfied with things as they are. He must be alert to any new development anywhere that might merit examination in his own area. He should have the energy and self-confidence to push new ideas forward, even when they're opposed. Finally he should have the confidence and support of the farmers, without which he can't be fully effective.

Here is a job that calls for the highest competence available, and sound academic training too. It calls, in fact, for greater drive, and greater versatility, than strictly laboratory research.

Let us now have a look at applied research of the kind that's needed. Here are two examples from the work of the Entomology Laboratory of the CDA Research Station at Summerland, B.C. The laboratory is situated in the heart of the British Columbia fruit belt. Although it has

long-term projects that can be classed as basic science, these are eventually applied for commercial ends. All of this laboratory's work, in fact, has been, in the long run, strictly industrial research. Its watchword has been money—the fruit grower's money.

AIR BLAST SPRAYING DEVELOPED

Since World War II, the Entomology Laboratory has developed the principle of low volume, air blast orchard spraying to the point that the British Columbia fruit growers lead the world in spraying technique. This is how it came about.

In the first place many of the fruit growers knew that applied research was vital to the survival of their industry, and the leaders of the industry strongly supported the laboratory. In the second place the research people who did the job were well supported by their superiors at Ottawa. Third, these researchers were applied scientists. They knew the fruit industry's problems intimately; and they knew what had to be done to keep the industry healthy. They were well versed in the difficulties and techniques of orchard pest control, not only in British Columbia but world wide. They were up-to-date on pesticide chemistry, and had ideas on sprayer design. So they took an idea from this area, another from that, and so on; and they added some of their own. Then, in experiment after experiment, they modified the outcome until the British Columbia fruit industry had a technique and equipment tailored to its needs.

That bit of applied research was spread over 16 years. It cost the Federal Department of Agriculture upwards of \$600,000. But every year, apart from the freedom of the fruit growers from one of the filthiest jobs in farming, that of low volume spraying, air-blast spraying is now saving them, in actual cash outlay, as much as the total cost of the project. The British Columbia grower enjoys an average saving of perhaps \$150 a year as compared with his orchard friend across the border in the State of Washington where similar research has yet to be undertaken.

And there are other dividends. Before the low volume, air-blast sprayer was developed, all the British Columbia machines had to be imported from the United States. Now practically all are made in British Columbia. Furthermore, as American growers learn of British Columbia developments, Canadian-made sprayers at \$2,000 to \$3,500 apiece are finding an increasing market in the United States. More Canadian machinists have jobs than before; and Canada saves a substantial sum in foreign exchange. Such may be the ramifications of applied science.

BULK HANDLING OF FRUIT

Now, the second example of applied science in the fruit industry. Until 1958 the British Columbia fruit grower picked his fruit into bushel boxes, each weighing, when full about 45 lb.



[CDA photos]

Air blast spraying technique developed in B.C. saves growers money every year

In 1954 research people at the Entomology Laboratory learned that an enterprising fruit grower in New Zealand was experimenting with a wheeled bin containing about a ton of fruit, as a replacement for the bushel box. Could this completely new departure in fruit handling be adapted for the B.C. fruit industry? If so, it would be worth millions to the growers and the fruit shippers.

The idea (bulk handling, it's called), was brought to the attention of the fruit growers in a series of local meetings and finally at their annual convention. Many of the growers were impressed. They spent some \$5,000 to send two representatives to New Zealand and Australia. Moved by this substantial demonstration of interest, the governments at Victoria and Ottawa each appointed an official to accompany the two fruit growers. The mission flew "down under," and was welcomed there with open arms. Soon it returned with the strong recommendation that experiments be undertaken at once to determine if the New Zealand technique could be adapted for the British Columbia fruit industry.

The agricultural engineer at the Entomology Laboratory was given the involved job of attempting to fit the New Zealand procedure to local conditions.

Within 4 years 90 per cent of the B.C. apple and pear crops were being harvested in hydraulically handled half-ton bins. Further experimentation had demonstrated the success of special bins for peaches,

apricots, and even sweet cherries. More than 3,000 fruit growers, not to mention 40 packinghouses, were making a saving of well over half a million dollars a year.

These two examples of applied research in the fruit industry point a moral for all farmers. It is this: In progressive farming, applied research is absolutely essential. But research of the kind that pays big dividends to the farmer doesn't just happen as a matter of course. It comes about only when the right kind of research people are on the job, and when they are given strong backing by the farmers for whom they are working.

WHAT TO DO

Pure science should be left to the well-equipped, centralized federal government research institutes, and to the universities. Farmers should support and encourage the decreasing number of really capable applied scientists who remain in practical extension. The encouragement won't be amiss!

Farmers' organizations should never take agricultural research for granted. They should keep in touch with their Ministers of Agriculture, and deputy-ministers, and make known their concern about it.

The trend to theoretical science has gone far enough; perhaps too far. Farmers should know that they can do something about it. They can urge those in authority that applied science is every bit as important to them as pure science. V



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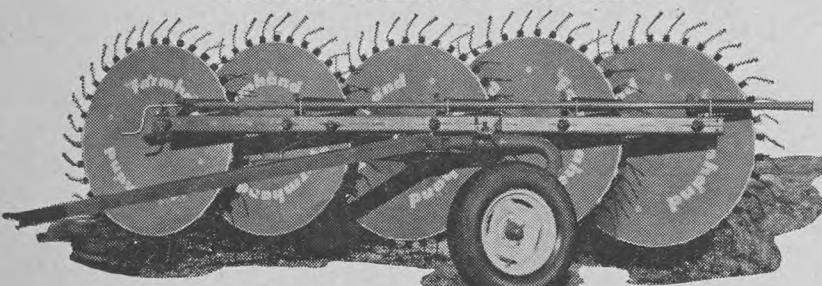
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A New Step in Marketing

To prevent further dissension between producers, sales agencies and processors, a Meat Industry Co-ordinating Committee has been set up in Alberta

LAST MONTH representatives of all segments of the red meat industry met in Red Deer, Alta., for a livestock marketing conference sponsored by the Western Hog Growers' Association. In contrast to meetings in other provinces where the battle lines were sharply drawn between compulsory marketing board pros and cons, this meeting stressed co-operation. The result was the appointment of Dr. T. W. Manning, Head, Department of Agricultural Economics, University of Alberta, as co-ordinator of a special Meat Industry Co-ordinating Committee to examine and report on the needs of the whole livestock industry.

The new committee will have a representative from each of the following: Alberta Government; Western Hog Growers' Association; Western Stock Growers' Association; Meat Packers Council; Retail Stores; Farmers Union of Alberta (producer rep.); Alberta Federation of Agriculture (producer rep.); Commission agencies; Livestock shipping co-operatives; Alberta Auction Market Operators Association; and a Consumer Association. In the words of a resolution passed by the meeting, this committee will be charged with "the immediate responsibility of determining current marketing problems and directing action which will solve these problems by mutual agreement for the benefit of all."

There were 15 speakers at the meeting representing cattle, hog and sheep producer associations, commission firms, auction markets, meat packers, purebred cattle breeders and professional Agriculture. Delegates came from all three prairie provinces.

Said Alberta's Minister of Agriculture, Harry Strom, who was there as an observer, "I'm not going to take sides in this dispute. I'm here to listen to what you have to say so the Government can adjust its policies to the best needs of the industry." Later, he said that he personally favored the co-ordinating council idea rather than the principle of compulsory marketing boards.

Speaking for the Saskatchewan Hog Producers' Association, Glenn Flaten, who farms south of Regina, told how the Saskatchewan Farmers Union and the Saskatchewan Wheat Pool were trying to push a compulsory board through without consulting bona fide producer groups. They had even set up a "provisional" board and are asking that this board be allowed to hold office for the first 2 years without a plebiscite.

"We shudder at the wide powers these people are asking for," Glenn Flaten said. "They seem to be more interested in wielding power than selling livestock."

Main objections to this provisional board are: (1) The membership doesn't include a high percentage of successful farmers; (2) only three members come from the largest part of the province, east or south of Saskatoon; (3) no member derives a

major portion of his income from hog production; and (4) no member of this board has made a known significant contribution to the Saskatchewan livestock industry.

Briefs presented at the meeting ranged from a proposal for a marketing board plebiscite put forward by the Farmers' Union of Alberta and the Alberta Federation of Agriculture to outright rejection of the whole principle of compulsory marketing by the Western Hog Growers' Association, the Western Stock Growers' Association, Alberta Swine Breeders' Association, Provincial Livestock Association, Alberta Hereford Association and Alberta Short-horn Association.

Representing the Alberta Sheep Breeders' Association, Ed Davidson of Coaldale said there was need for an economic study to see what happens to their product from producer to consumer. There was practically no open market for the sheep producer in Alberta.

"I came here with an open mind," he said, "because we must improve our bargaining position somehow. But I don't like compulsion."

He went on to say that the big trouble was imports from Australia and New Zealand — that no commodity should be allowed to come into a country and completely demoralize local producers. But he also pointed out that a marketing board wouldn't solve this problem because this was a Federal responsibility.

Speaking for the Alberta Swine Breeders' Association, hog producer Stan Price of Acme said that he sold most of his hogs through public market because he felt this helped to establish a fair price, but about 15 per cent of his production went directly to the packers.

"Direct plant delivery is still the best way to sell hogs," he said. "I have records to show I suffer considerable losses from shrink when hogs are handled through an assembly point. As hogs are sold on a rail grade basis there is no need to assemble them anywhere."

He then quoted official USDA figures to show that contract farming — one of the bogey men raised by compulsory marketing advocates — is on the decline, while specialized family farms are increasing.

"Specialization has opened new roads for the family farmer," he said, "let's not hamstring him with unnecessary regulations and controls."

A second resolution that the Alberta Government "consider the solutions enacted by this conference to solve any present marketing problems" was defeated.

Agriculture Minister Strom said that a marketing board plan had been submitted to him by the FUA and AFA and that he had advised it be returned to the solicitor for one or two minor changes. The plan would be re-submitted to him in a day or two, then he would present it to the Cabinet.—C.V.F. V

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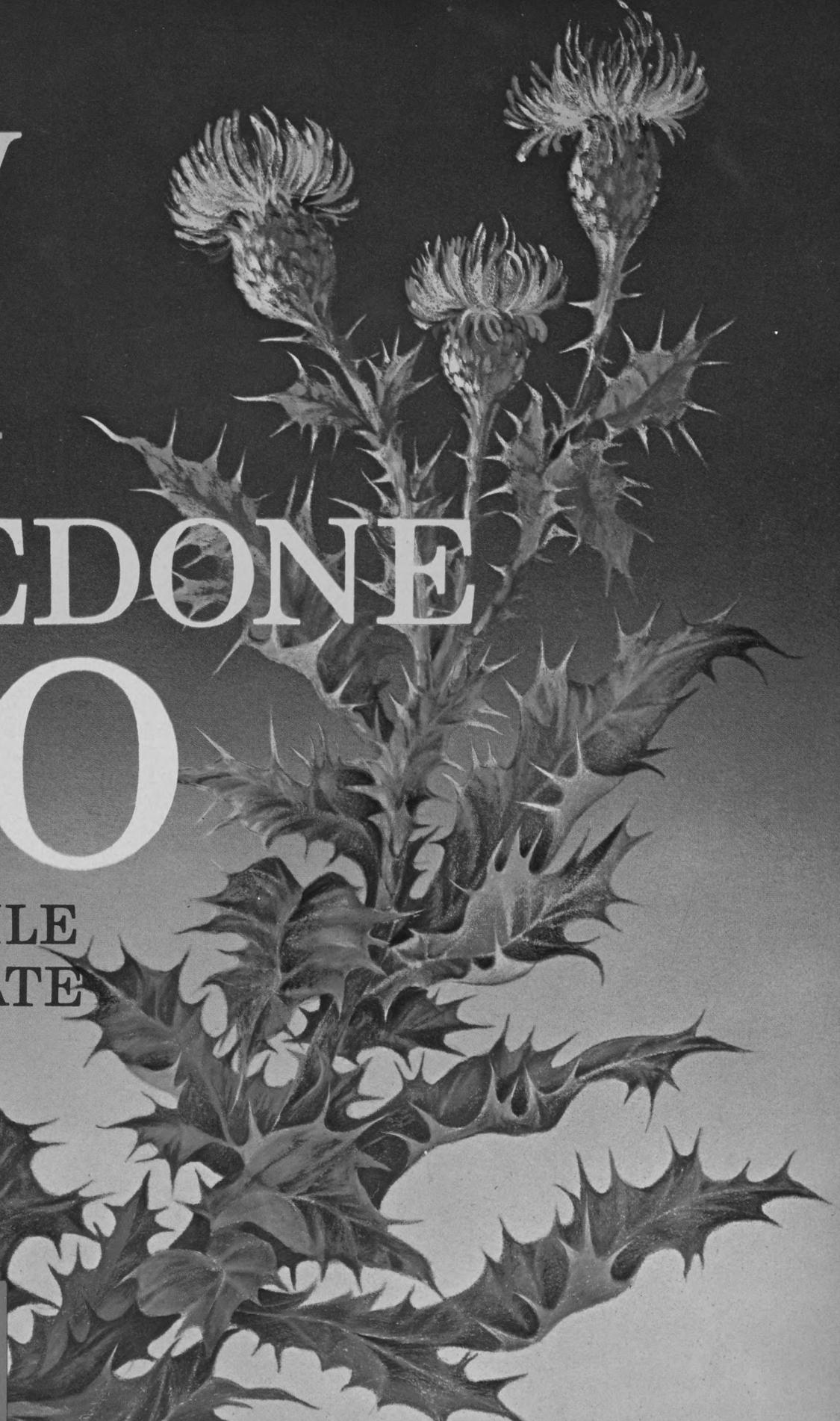
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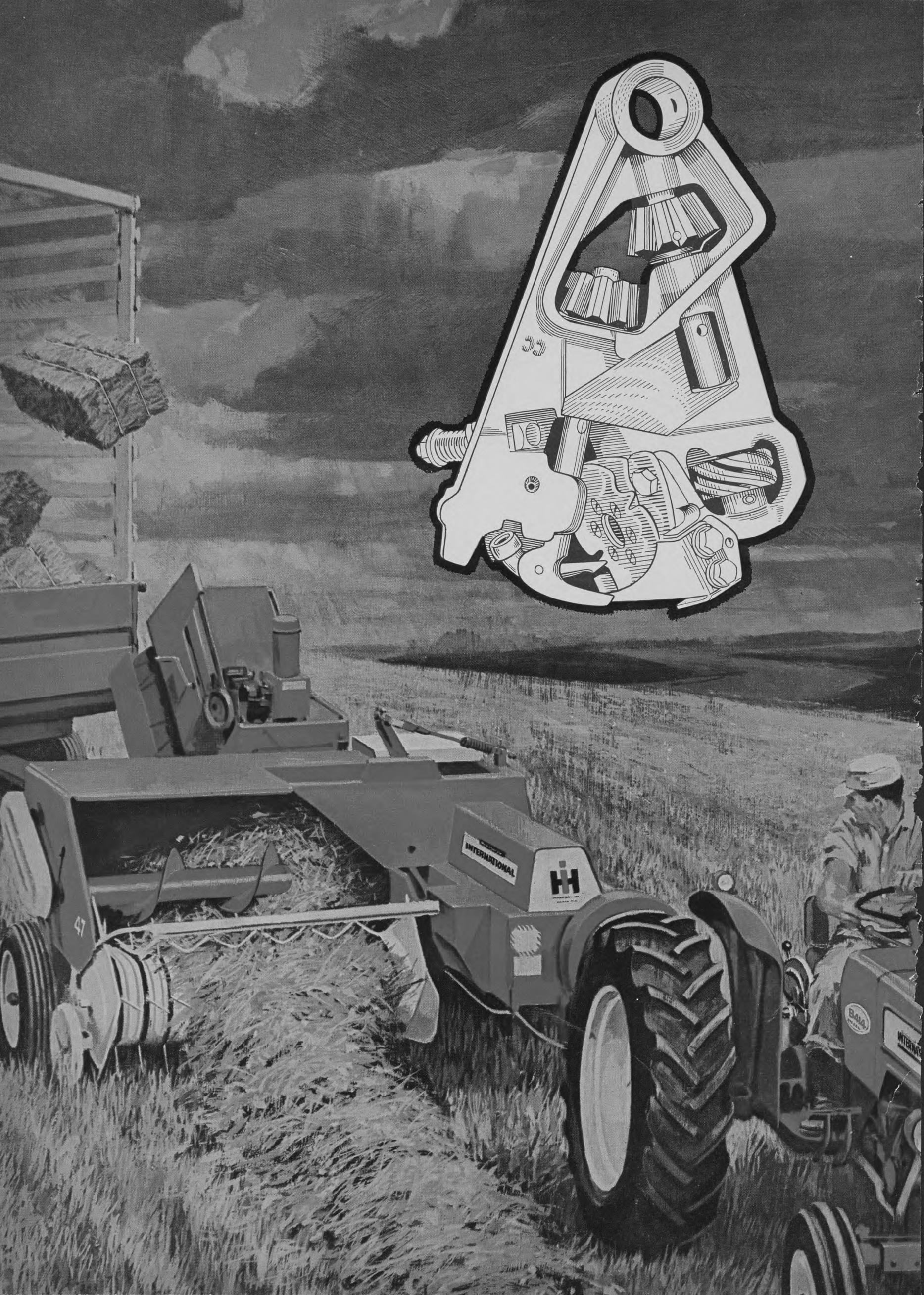
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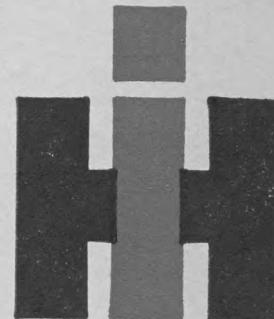
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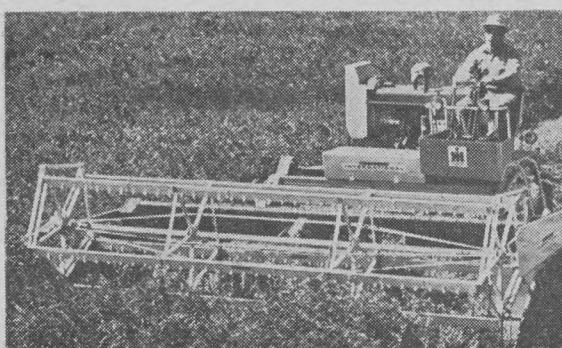
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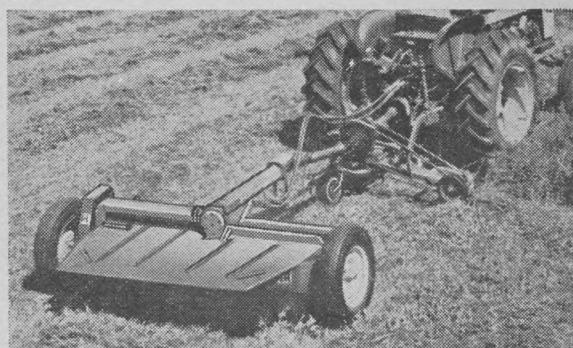
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McCormick-International MOWERS Picture shows wrist-action No. 100 model—no pitman. Super-smooth—cuts up to 50 acres a day. There's a high-speed IH mower for every tractor and every need.



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A Three-Point Fly Control Program for Livestock

A look at new products that are available on the market, and a glimpse at John Dalrymple's method of control

NOT MANY insect pests win a word of praise from those whom they torment—least of all not face flies which in the past couple of years have perplexed farmers across the country. But in the view of John Dalrymple, farm manager of the Kemptville Agricultural School in Ontario, we should give the face fly credit where credit is due. Dalrymple says that as a result of this pest, most farmers have become more fly conscious. Now, a great many new products are being tried for fly control. His own experience as farm manager is that fly control is in fact possible. He goes further, points out that fly control pays. He cites research work in the United States showing that where dairy cows were treated for flies for a period of 2 months, there was an increased profit of \$15 per cow.

It's true, points out Dalrymple, that flies are falling victims to

newer and more effective chemicals. But it is not true that good fly control around the farm is a simple matter. It takes more than a can of fly killer to do the job. In his view it takes a three-point program: (1) Start your program early in the season. Don't wait until the fly population is built up or you will be disappointed. (2) Do a thorough job whether you're spraying the manure packs, spraying the barn walls or spraying the cows. (3) Read instructions on each and every label of the container carefully. Do not assume that all products are of the same concentration. This is essential to guard your health and to protect the consumer.

Scientists are working hard developing chemicals to control flies, and several new products are in the experimental stage now and are licensed for experimental use. These will be available in time.

But Dalrymple reports that two promising materials have been approved for use in recent months. One is known by its short name, D.D.V.P. This one is for use on both livestock and in the stable. The other is Dimethoate, which is approved only for stable use.

Here is the story of D.D.V.P. It was first used for control of face flies but it has been found to be fairly satisfactory for horn flies on cattle as well. It is sold under the trade name of Vapona and when used on cattle for face flies and horn flies, it should be sprayed daily on the face, over the shoulders and the back. Since it is very unstable when exposed to air, it should be mixed fresh at least every other day.

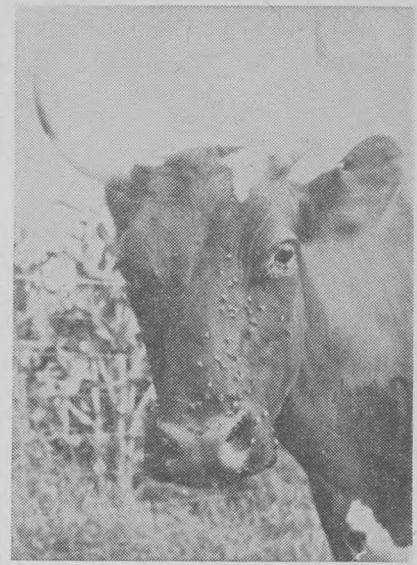
Dalrymple says that it is best applied by hydraulic-type gun which can be set to measure the amount of spray applied. It is applied as a spray on dairy or beef cattle at the rate of 2 oz. per animal. It can be used in oil, or as an emulsion which is mixed with water to make a 1 per cent solution.

Dr. Heming of the Ontario Agricultural College says that the cheapest preparation of D.D.V.P. is the emulsible concentrate which should be mixed with corn syrup and water in the proportions indicated on the label. He says other preparations are available as a powder (D.D.V.P. and sugar) and require only the addition of water and thorough mixing before use. He says the prepared bait should be kept tightly sealed when not in use. Dr. Heming says that the treatment can be applied by means of a paint brush using a mixture of syrupy consistency or by

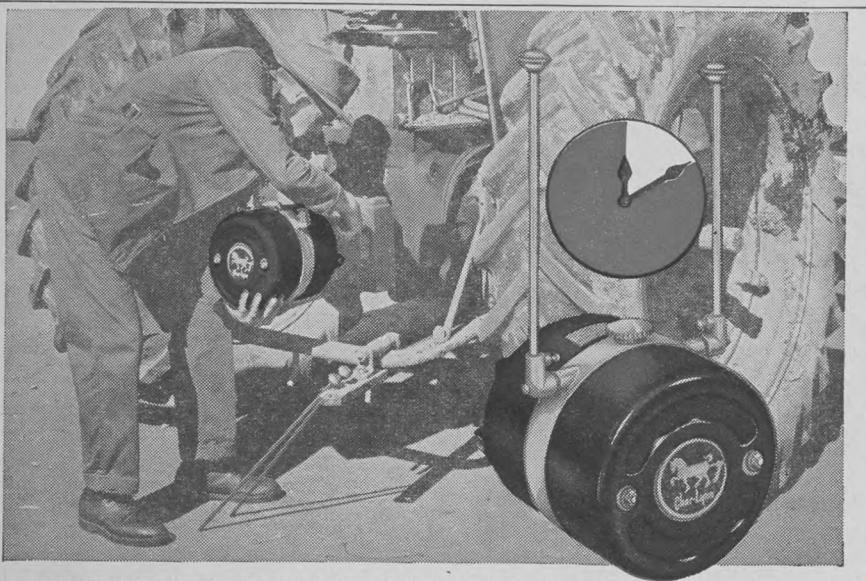
means of a hand sprayer using a thinner mixture.

Surprisingly small amounts of this material can give good fly control. Dr. Heming reports that in tests conducted in 1962 with dairy herds, it was found unnecessary to spray the stables. It proved sufficient to spray the cows. Here's how they were handled. A hand sprayer calculated to deliver 5 cu. cm. per stroke was used and 2 strokes were applied to each animal at each treatment—one to the face and the other over the withers. Small amounts of the spray which missed the animals and landed on stanchions and walls, served to control house flies.

Of course other products are available too. For instance Methoxychlor (50 per cent wettable powder) applied as dust on dairy cattle



Face flies, unknown just a few years ago here, are now an annual problem



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FLY CONTROL ON LIVESTOCK

Precautions: In applying insecticides on livestock and barns, do not contaminate feed, water, trough

FOLLOW DIRECTIONS ON MANUFACTURER'S LABEL IN DETAIL

Animal and Insect	Insecticide	Formulation and Strength	Amount per Animal	When and Where to Apply	Instructions and Precautions
Dairy Cattle Face Flies Horn Flies	D.D.V.P. (under number of trade names)	23.7% E.C. ½ cup in 3 quarts	2 fluid oz. per cow per day	Face and withers every day for 2 or 3 weeks, then as needed	Follow instructions on container as D.D.V.P. put up in different concentrations. Should be mixed fresh every 2 days
Dairy or Beef Horn Flies	Methoxychlor 50% W.P. Malathion 5%	50% W.P. Dust 50% W.P. Dust	1 tbsp. 2-3 tbsp.	Sprinkle on neck, shoulder and back every 2-3 weeks or as needed, depending on gain	Do not spray Dairy cows with either Methoxychlor or Malathion. Dust only
Beef Cattle or Dairy Heifers Face Flies Horn Flies	Toxaphene and Mineral Oil	5% Toxaphene in Mineral Oil	Back rubbers	Adjust to proper height depending on size of cattle. Place near water trough or in gateway. Do not use within 28 days of slaughter.	

The above are only a few of the products available at the present time
E.C.—Emulsifiable Concentrate
W.P.—Wettable Powder

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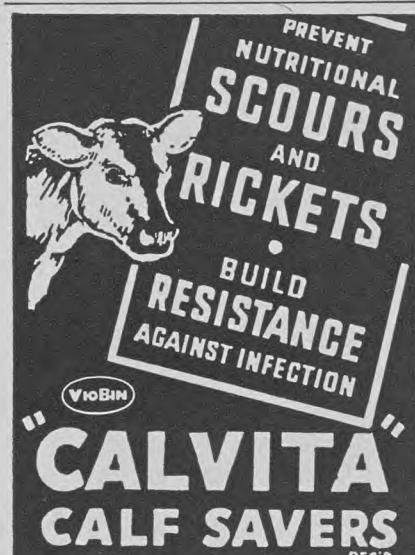
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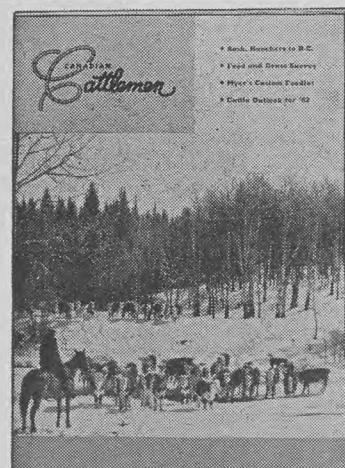
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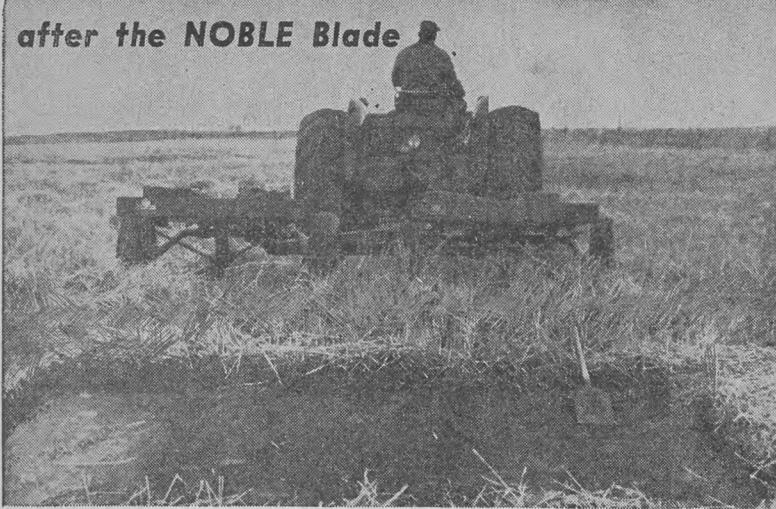
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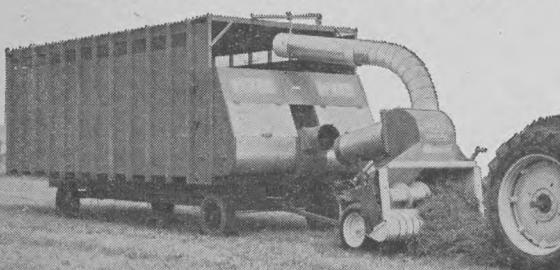
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Management



[Guide photo]

Farmers must boost output to meet rising costs or leave the land. Proper use of credit can enable them to expand by such means as feeding more livestock

Why and How to Use Credit

This farm management specialist advises young farmers to get credit early, carry life insurance to cover the debt

IT MAY BE possible to start farming without credit, but is it worth it? You may have to subsist for years without comforts to obtain ownership of the farm when another job will offer these comforts all along. Only by the use of credit will some people be able to answer the call of the land.

"Credit, handled by a competent operator at the right time, can be the most useful tool on the farm," states J. L. Drew, farm management specialist, of the Saskatchewan Department of Agriculture.

Credit can be used in several ways: it may be used to expand the farm quickly, especially at the start of a farming career, or for the adoption of improved farming practices. It can be obtained for just about any farm need: to purchase land, livestock and equipment, or for seasonal farm supplies such as good seed, fertilizer and spray.

Mechanization and technological advances in modern farming require greater investment and expenditure. Farm prices haven't increased much, so farmers must boost their output to meet mounting costs, or leave the land.

Extra capital can provide for more comfortable living and increased production. This suggests that credit is vitally important in replacing the pitchfork with a front-end loader, or the kerosene lamp with the electric switch.

Before setting out to look for credit, here are some questions each farmer should consider.

• Do I need to use credit?

Credit is recommended unless the farmer has sufficient resources of his own — land, buildings, machinery, livestock and supplies. Up to \$40,000 or \$50,000 seems to be the investment needed today to start farming. Many farmers don't have this. It may be possible to rent land, but short term credit is often needed for machinery and seasonal operating expenses. It boils down to the fact that most farm businesses can use extra capital.

• Where should I use credit?

The lack of resources that limit

income varies from farm to farm. It may be a shortage of land or buildings, or machinery or livestock, or working capital. For land purchase, credit can be obtained with 20- to 30-year mortgages. Short term loans are available for machinery, buildings, livestock or working capital. Invest credit where it will bring the best return.

• How much credit should I use?

The size of the farm business is important. A well run farm should show a fair return on the operator's



J. L. Drew

capital as well as his labor and management after other expenses have been deducted.

In planning for credit, consider these steps:

• Plan out your credit needs. Farm records help to show the present situation. Budgeting or planning shows whether or not adjustments could be made to improve things.

• Consider the cost of the loan in terms of your ability to repay it and the time period involved. Some credit sources have a variable repayment scheme. Farm Credit Corporation has a repayment plan in which payments vary with grain yields.

The debt limit of a farm should be based on expected earnings and the amount that can be paid off each year.

• Use credit where it promises to return more than it costs. If credit is limited, use it where it will yield the highest returns. Enterprise accounting and budgeting will help to compare the return from each line of production. Credit used improper-

(Please turn to page 71)

Grade A Hogs with Corn

A RECENT FEEDING trial at the Western Ontario Agricultural School indicates again that it is possible to produce high quality market hogs while feeding high energy rations based on corn. In these trials 8 barrows and 8 gilts were fed high energy corn ration. Every one of them graded A carcasses when sent to market. Feed conversion was 3.2 lb. of feed per lb. of gain made.

In the view of Jack Underwood who conducted the trials, it's further proof that you can feed corn to hogs without getting overly-fat carcasses. The real secret, he says,

is to use the right kind of breeding stock. In the trials referred to, the test group consisted of Yorkshire market hogs and Yorkshire x La-combe crossbred market hogs. All hogs came from high testing Record of Performance sows and boars.

The ration consisted of 75 per cent coarse ground shelled corn and 25 per cent high protein supplement fortified with all known essential minerals and vitamins.

Limited feeding was carried out from the time the pigs weighed 90 lb. until they went to market. They were fed less than 5 lb. per day during that time. Underwood says

that this limited feeding practice assists in improving borderline grades. In other words it helps some hogs. But he also says overwhelming evidence is available to show that breeding is the key to a real long-term improvement in the grade of hogs. Carcass qualities are highly heritable. Says Underwood, the person who wants to produce high quality pork in the years ahead

must carry out an effective breeding and selection program in his herd. That's the secret to high quality hog production. ✓

Corn is important to the industry, he says, because it is a most efficient high energy feed. Animals eating it grow and fatten readily. Hogs that are properly bred will make high quality carcasses on it too.



Well-bred hogs like these at Ridgetown produce Grade A's on corn-based rations

[Guide photo]

New Bull-Testing Program

THE CENTRAL Ontario and Waterloo Cattle Breeding Association has embarked on a new and ambitious program of cattle improvement. The Association notes that traditional theories for cattle improvement have been used for the past 20 years and they have done their work well. As a result dairy farmers through the country who are using bulls from the unit have developed high quality herds. These herds are so good that the old methods of sire appraisal just won't do any more.

Comments the unit, "We can't stake our future on bulls bought on the basis of a satisfactory proof in a single herd because in wider use their offspring may be no better than average. Neither can we place bulls in service haphazardly, have them used for several years, then find

that they can't improve on our A.I.-built herds."

The unit has concluded that its next move ahead will involve: (1) Buying many bulls when they are still young. (2) Breeding them to several hundred cows early in life. (3) Setting them aside until their offspring produce and are classified. (4) Culling the bulls that aren't producing sufficient improvement.

The unit expects that only 1 bull in 4 which it tries will meet its standards and be worth the confidence of every breeder. But it believes that further progress lies in encouraging the use of only proven bulls and of young sires breeding their first few cows.

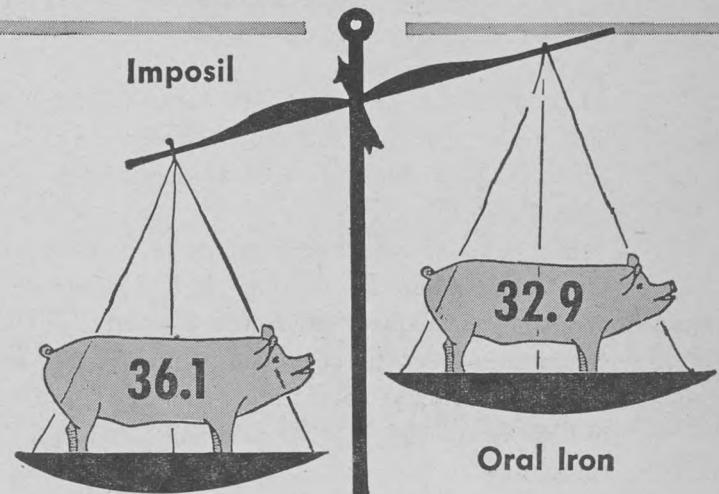
As a result the following policy has been established for use with the major dairy breeds. (1) Only well proven bulls will be in year-to-year service. (2) Young bulls will be in service only until they have bred enough cows for proving. (3) Stand-by sires awaiting proof will not be regularly available from each office.

The unit notes that if a breeder does wish to use a stand-by bull for some special matings, he can obtain the semen by special order. He will however be expected to pay the cost of storing this semen (50¢ per vial per 6 months).

Since the unit expects there will be a heavy demand for semen from some of the most outstanding proven sires and in order to ensure that all bulls will be available at all times, a sliding scale of service fees is being adopted. Bulls with ultra-high proof and popularity will be available at \$5 extra per first service. ✓



PIGS 3.2 LBS HEAVIER AT 8 WEEKS ON INJECTED IRON



A trial on 656 pigs, over a 1½ year period, at a well-known agricultural college† showed that piglets treated once only with injected iron (Imposil was used) gained on the average 3.2 lbs. more than a group dosed at 3, 10 and 17 days of age with oral iron. The experimenters concluded: "Although it cost more to inject than to dose a piglet with iron, the extra liveweight gain at eight weeks more than compensated for the extra cost of the injected iron. A further advantage in favour of iron injections was that piglets were handled only once, as against three times for dosed iron."

†Technical report on result of trial available on request.

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Kris and son Jim pulling net with fish through a hole they have drilled in the ice. Fish in the foreground will be fed to cattle at the ranch

Quality Cattle, Fish-Fed

Karl and Kris Olson find that their two enterprises, ranching and fishing, complement one another

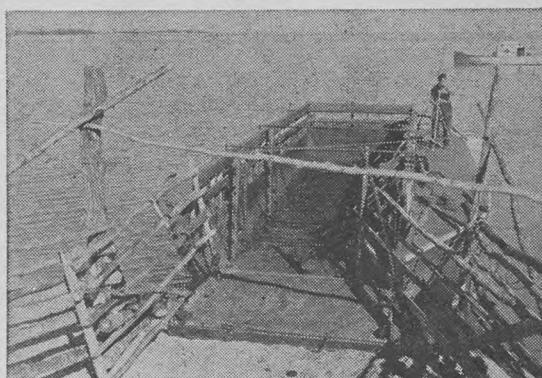
by JOHN MacLEOD

FOR THE Olson brothers, home is at Steep Rock, Man., on the shores of Lake Manitoba. But their ranching and fishing enterprise centers on Peonan Point, a 28-mile-long peninsula 3 to 4 miles wide which juts down into the north end of the lake and is almost inaccessible by land. In the summer the brothers commute to the ranch over 6 miles of water. In the winter they go by the same route by snowmobile. For it's on their 12,000-acre ranch on the Point that they run close to 700 head of Hereford cattle and calves. The ranch is unusual by any standards. The cattle, for instance, live almost entirely on native grass. They receive no legumes or concentrates and never see grain. But most of them still sell as good quality butchers.

One reason must be that the Olsons have been buying good bulls. But another must be the practice

they have made of feeding whole fish to their cattle. It's one way that their second enterprise, fishing, complements their prime business which is ranching.

On Lake Manitoba, commercial fishing is only permitted during the winter. In the winter the Olsons, who are identical twins, and their two sons Jim and Larry arrive each morning in their snow vehicle or Bombardier at the feeding area where the calves and bulls are penned and the steers and cows run unfenced. Each winter morning the foursome usually splits up, two remaining to look after the stock and the other two moving on to spend most of the day setting and lifting gill nets under the ice. Toward evening the Bombardier comes back to the ranch headquarters with up to several hundred pounds of fish aboard. The pickerel and sauger are destined for markets in Winnipeg



Barge at loading chute ready to load cattle. Bow is hinged; drops down to become loading ramp



Kris throws a fish to a waiting cow. Appetite of cattle for fish in this form is surprising for herbivorous animals

and the United States; the coarse fish, usually suckers, go to the cattle, which hurry to meet the returning fishermen and enjoy their daily feed.

Not all of their cattle will eat the whole fish. Some ignore the only alternative to the native grass that is ever offered to them. Either they do not need the minerals and vitamins the fish provide or they just don't know what they are missing. Once they acquire a taste for fish, however, they just can't get enough of it.

The practice of feeding fish started in earnest in the dry years of 1957 and 1961, when Karl and Kris pulled their cattle through with fish and a little concentrate. Although their ranch is almost surrounded with water the Olsons were just as short of hay as anyone else and instead of selling the coarse fish for mink feed as they had done for years, they threw them to the stock.

There is apparently no danger of tainting the meat because plenty of time elapses from the last feed of fish in early spring until time of marketing in fall.

Watching those cattle eat whole fish is an unforgettable experience. It's one that startled this observer when he traveled to the ranch with the Olsons one cold winter's day. It's one that has startled many people across the country too for it has been shown on television in recent weeks.

The Olsons prefer to sell their cattle off grass in the fall. This means the cattle must be moved off the ranch over open water. To accomplish this, the Olsons and their two rancher neighbors, Ollie Hjartarson and Jonas Gillis got together and built themselves a massive barge which will float 15 tons or up to about 30 head of older stock at one time. It is powered by a caterpillar tractor engine.

Each fall the cattle that are destined for market are less than eager to take their first and only boat ride. But once they are driven into the deep belly of the barge, they remain perfectly quiet whether the water is calm or rough. At the mainland they are transferred directly to trucks and then to auction. Usually they are sold at 2½ years old weighing around 1,100 pounds. ✓

How About D.E.S. for Hogs?

STILBESTROL IS commonly used by cattlemen for increasing daily gains and in some cases, leaner carcasses of cattle. But what about using stilbestrol for hogs?

Hog producers are equally concerned about trying to improve rate of gain, feed efficiency, carcass quality, and net profit. A 2-year experiment was completed recently by the Canada Department of Agriculture in Melfort, Sask., showing that under certain conditions, stilbestrol can be effectively used by the hog producer to increase his profits. In this particular experiment, both gilts and

barrows were used with the barrows being implanted with stilbestrol and the gilts with testosterone.

The basic ration consisted of about half wheat and half barley plus necessary minerals, salt, and antibiotics. Some of the pigs received this ration as it was, while others received it on a diluted basis with ground alfalfa hay added. All pigs were allowed to eat as much as they wanted to.

The results were encouraging even though the over-all effect of the hormone treatment on rate of gain was not very significant. However, the barrows that were implanted with stilbestrol produced twice as many grade A carcasses and returned the most profit. This was particularly true when the implanted barrows

were fed the diluted ration containing ground alfalfa hay. The gilts, on the other hand, yielded the greatest profit when they were fed the basic ration without hormone, but with extra protein added.

In general, the barrows showed greater improvement from receiving the hormone treatment than did the gilts. The hormone implants had little if any effect on carcass length or fat thickness over the loin, but shoulder fat was reduced considerably.

Barrows treated with stilbestrol received one implant of 12 milligrams of the hormone, and the favorable results obtained indicate that stilbestrol may soon be as widely used by hog producers as it is now by cattlemen. ✓



Photographed at Master Feeds Research Farm

496 PIGS WEANED, OUT OF 525 BORN

This 12-month record at Master Feeds Farm carries a powerful message for hog producers

The figures in the headline above become still more revealing when we complete the picture. They represent 48 litters . . . and average out at 10.9 pigs per litter farrowed, 10.3 pigs per litter weaned . . . for an outstanding record of 94.5 percent LIVABILITY. Master Feeds Research has shown how to hurdle one of the biggest obstacles in commercial hog production . . . how to produce a consistently

high average of WEANED PIGS per litter. Four types of basic research have been aimed at this objective:

1. Research in dry sow nutrition
2. Research in nursing sow nutrition
3. Research in supplementation of sow's milk by means of creep feeds.
4. Research in anemia prevention

The Master Program for Profitable Hog Production is based on this (and other) research at Master Feeds Farm. Consult your Master dealer or territory manager. Master Feeds, division of Maple Leaf Mills Limited, Saint John, N.B., Montreal, Toronto, Winnipeg, Calgary, New Westminster.

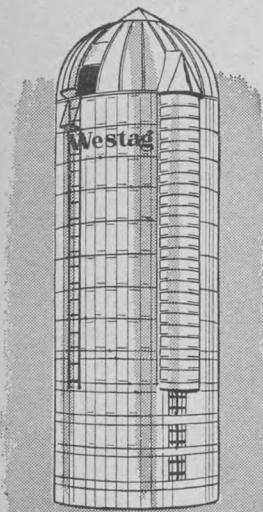


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"Nothing better than a feed of fresh or frozen fish," this cow seems to be thinking, as she gulps one down

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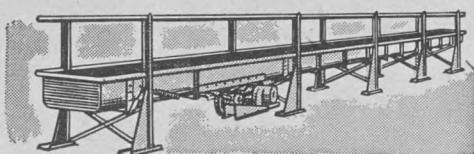
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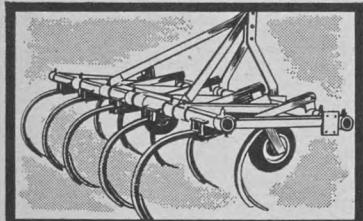
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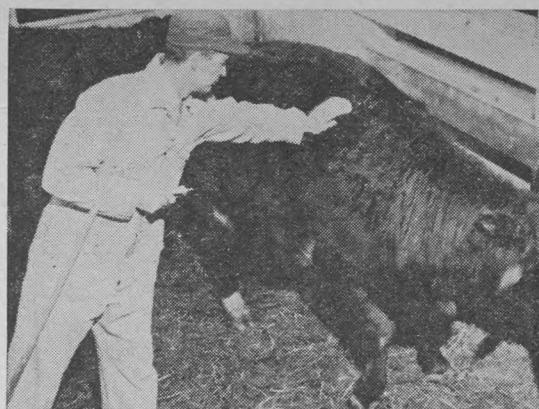
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This animal destined for slaughter is tagged before being sent into the sale ring

[Sask. Dept. of Agric. photos]

New Program Will Cut Out On-Farm Bang's Testing

Instead of testing cattle at the farm, veterinarians will blood test market cattle at the packing plant

ON-FARM testing of beef cattle for brucellosis, or "Bang's Disease" may become virtually a thing of the past once a new testing program of the Canada Department of Agriculture comes into effect.

The new program which will be used primarily in Western Canada is simply a method of screening tagged market animals for brucellosis by testing blood samples drawn at markets or packing plants. This reduces the need for collecting blood samples at the farm or ranch.

The program is intended to be less inconvenient for the owner and less costly to the department. It will be used in conjunction with the present brucellosis test for dairy cattle and the existing blood testing program.

Any cattleman in a certified brucellosis area may participate in the new plan. Only female cattle 4 years old and over will be tested. Younger animals are excluded as infection occurs mostly in older animals.

The females for market are identified with a special backtag at any stage of marketing: at the farm, at assembly points or at public stockyards.

These tags identify the province, area or county as well as herd origin of animals shipped to market. Tags are available from sub-district offices

of health of animals branch, Canada Department of Agriculture.

The tagging operation is quite simple. Tags are applied to either side of the animal, just back of the shoulder about 4 inches below the backline. Such a location protects the tag from mutilation and is easily detected on the killing floor.

All tags used are reported to local health of animals representatives.

Inspected plants across Canada are co-operating in the program. It doesn't matter where animals are marketed, blood samples will be taken at the packing plant when animals arrive.

Trained meat inspection personnel collect the blood samples and forward the test results to federal disease control officials in the province of animal origin. The results are credited back to the herd and area of origin and are used for re-certification of brucellosis areas.

Sub-district offices are notified of all results. If reactors appear in the herd, a veterinarian visits the farm concerned. Any reactors found more than 2 weeks after they leave the farm will not be credited to that herd.

"Such a method of screening will give continuing assurance that infection has not been introduced into each herd. When infection appears,

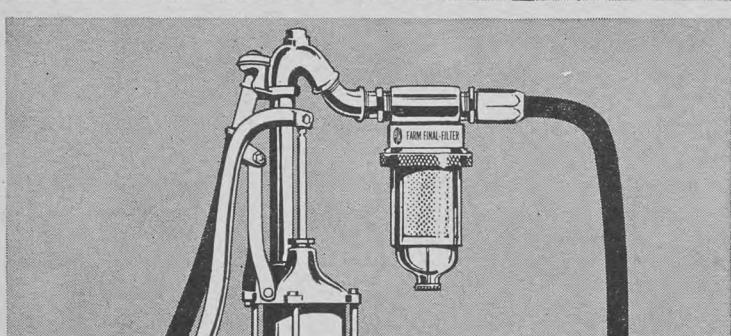
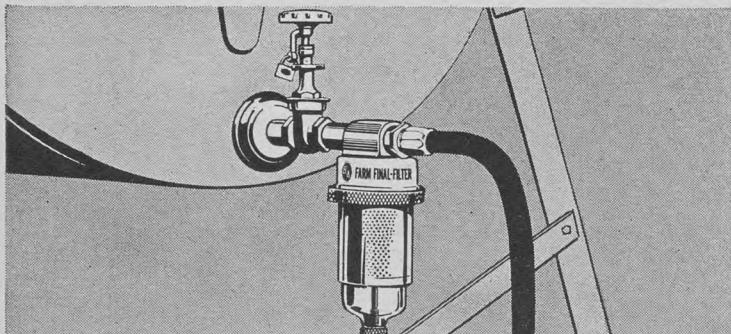
(Please turn to page 32)



Blood sample being taken from a tagged animal after being killed. Samples are analyzed and report returned to point of origin

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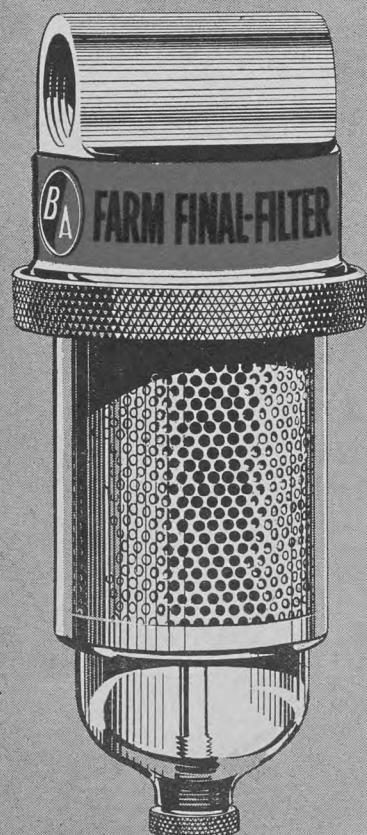
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(Continued from page 30)

it can be located easily and quickly eliminated," said Dr. Carlson.

An area can be recertified as brucellosis-free for a period of 3 years under the new plan. At least 5 per cent of all breeding cows in the area must be backtagged and tested each year for a 3-year period, or a total of 15 per cent in 3 years.

Reactors are traced to the herd by the code numbers on each tag. When reactors are present, many factors determine whether or not the entire herd will be tested. Some of these factors are the number of reactors in a particular herd, size of the herd and whether the herd has had previous infection.

Herds with 100 or more subject to test have three alternative courses of action:

1. The entire herd may be tested.
2. If only a single suspect cow occurs and the brucellosis history of the herd appears good, action may be postponed until the results of additional market cow tests are available.

If no reactors are found the herd will be considered brucellosis-free.

If blood tests at market reveal further infection, the entire herd will be tested.

3. Test a percentage of the susceptible cattle.

Participation in the new program should eliminate on-farm testing with only two exceptions—if reactors

are traced to the herd or if a farmer in a recertified area has failed to market and backtag 15 per cent of his breeding cows over a 3-year period.

In field trials, market cattle testing eliminated 97 per cent of on-farm testing required for recertification of the area.

"By reducing on-farm testing, each area can maintain its certified status with less work and cost and still contribute to the eradication of brucellosis," said Carlson. □

Three-way Crosses for Hogs

"THE ONLY WAY commercial hog producers are going to improve the quality of their product rapidly is through crossbreeding," says Dr. Howard Freedon of the Lacombe, Alta., Agricultural Research Station.

Dr. Freedon recommends a 3-way continuous crossbreeding program like this.

Use the three white breeds, Yorkshire, Lacombe and Landrace. Start with top quality Yorkshire gilts and cross these with a Lacombe boar for 2 years. At this point, dispose of the Lacombe boar and obtain a top quality Landrace boar. Use this boar for 2 years. Replacement gilts are again saved from the last group of litters. Following the 2 years of using the Landrace boar, substitute

a top quality Yorkshire boar for the Landrace. Again save replacement gilts from the fourth or last group of litters. Always carry on in the order established in the first cycle. For example, it might be Lacombe, Landrace and Yorkshire. Actually, the breed order is not important, but once established, do not vary it.

Commercial producers should use the very best quality of R.O.P. boar.

Such a program will give a relatively rapid improvement in market hog quality if the dams are selected carefully. There is no advantage to the commercial producer in maintaining a single breed herd.

Keep the breeding stock selection program simple and be consistent. Select on the basis of rate of growth, feed efficiency, carcass quality and weanling vigor in the progeny. Combine good type with a high R.O.P. score. Probe all gilts, considered potential breeding stock, for backfat thickness and keep only those that are better than the herd average. Backfat thickness is a measure of carcass quality and is highly heritable. Do not backtrack to fat types for the sake of keeping the herd in style, the swine researcher says.

There is nothing to be gained by making litter size the sole criterion for selection of dams. Litter size will not be increased this way nor will quality of the market hogs necessarily be improved. The only effective way to up litter size is to cross-breed.

High quality of the market hogs should be the sole aim of commercial producers, Dr. Freedon says. After

all, they are in the business to supply the consumer with the kind of meat she demands. If quality is not high, the demand for pork will be low. □

Care of Pregnant Ewes

LAMBING RESULTS during the next 2 months will be in direct proportion to the quality of feed received by their mothers between now and lambing.

A. J. Charnetski, livestock supervisor with the Alberta Department of Agriculture, says he cannot stress too strongly the importance of feeding ewes the best quality green hay or hay and alfalfa during the second half of their pregnancy period. Lambs from ewes which have had feed rich in protein, energy and vitamin A will be stronger and much more resistant to colds and disease than those born to ewes which have been poorly fed.

Energy feed is very important, particularly for older ewes. About 1 pound of grain per day is excellent insurance against pregnancy disease or weak ewes. It will also ensure the birth of strong energetic lambs. It is a good idea to feed the ewes some distance from the barn or shelter so that they get enough exercise to be healthy.

In addition to highly nutritious feed, pregnant ewes must have access to loose blue salt and a good supply of drinking water, says Mr. Charnetski. The latter is particularly important if clean snow is not available. □

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Art Conrad, Estevan, Sask. is one of nine poultrymen in the province who have earned the privilege of using the "Saskatchewan Seal of Quality" on their eggs.

Through hard work, good management and conscientious planning Mr. Conrad is today one of the largest producers of top quality eggs in Saskatchewan. He has been a "Miracle" Feeder since starting in the poultry business almost 25 years ago. Average production: 85% to 87%. He has tried other brands but always comes back to "Miracle" with this to say, "'Miracle' quality and service are tops, it's a real pleasure to deal with this company".

High Moisture Corn for Poultry



[Guide photo]

Don Luckham brought broilers to market on ration based on high moisture corn

ONE OF THE LEAST expensive methods of storing grain corn is in silos as a high moisture product. Plenty of hog producers are using this method today as well as beef men. Now Don Luckham of the Western Ontario Agricultural School has carried out some research to find if the program has any application for poultrymen as well.

Luckham used broiler chicks and compared rations with high moisture corn against those with dried corn.

He found that broilers didn't grow as fast when getting a ration based on wet corn, unless that ration was supplemented with the amino acid Methionine. However, he found if the high moisture corn was dried as it came from the silo before being fed, the broilers grew as well as if they were being fed kiln-dried corn. If the corn was dried out too much (for instance down to about 9 per cent moisture) growth was depressed.

Luckham notes that high moisture corn itself is too perishable for commercial use in poultry feed. However, he says that the large producer who is equipped to mix his own feed each day may find a use for this product providing the proper calculations are made. The feed cannot be prepared and stored in advance as it heats and molds rapidly.

Luckham says that high moisture corn which is dried as it comes from the silo seems to be equal in feed to that of kiln-dried corn. He says that corn which is brought to an elevator while it is still high in moisture and is intended for feed use might be stored in a silo and dried later on. Thus the drying season could be extended over a larger part of the year without any increase in drying equipment.

Luckham also tried the high moisture corn in a 3-week test with laying hens. He was able to detect no off-flavor or odor in the eggs produced.

He suggests a couple of other reasons too, for an interest in high moisture corn. He notes that drying and storage facilities for newly harvested corn have been supplied by

country elevators who offer a market or grain bank for farm corn. However he notes that new corn harvesting machinery and an increase in grain corn production have taxed present drying facilities and created an interest in on-farm storage and drying. He notes that the silo represents one of the least costly methods of storing corn.

In his feeding trials with broiler chicks, Luckham compared four different corn products: (1) high mois-

ture corn; (2) high moisture corn that was dried before being fed; (3) imported corn which had been stored for from 3 to 7 years in conventional steel bins; (4) the standard kiln-dried corn. All corn was substituted in the ration on an equal moisture basis in order to retain the nutrient balance of the feed ingredients. He found it necessary to use about 122 lb. of high moisture corn containing about 29 per cent moisture to provide the equivalent amount of dry matter to that supplied by 100 lb. of kiln-dried corn. V

Hints on Raising Chicks and Turkeys

FARMERS INTENDING to raise chicks or turkey poult should thoroughly clean and disinfect brooder houses at least 4 or 5 days before the birds arrive.

Here is the procedure recommended by Dr. H. C. Carlson, Poultry Diseases Section of the Alberta Veterinary Laboratory, for preparing the brooder house and for looking after young birds during the most crucial period.

The best way to clean the brooder house is to scrub the walls and floor with a hot lye solution. Be careful not to get the solution on the hands

or face. Spray the walls and ceiling with a hot creolin solution or any other equally strong disinfectant. The hotter the disinfectant the more effective it will be. When the brooder house is dry, apply a white-wash mixture containing disinfectant. A similar procedure should be used to clean and disinfect feeders and waterers.

Dr. Carlson says great care must be taken to prevent the young birds getting chilled or overheated during transit and immediately after they have been put into the brooder house. The brooder house should be heated for at least 24 hours before it is used to thoroughly warm the litter and the floor of the building.

Make sure there are plenty of feeders and waterers and put cardboard guards around the brooder to keep the birds near the heat until they get used to their new surroundings. It is important to block off all corners so that the birds cannot pile up and smother each other.

If well water on the farm has a high soda content, give the birds river, rain or melted snow water, which has a fairly neutral taste, for the first few days. As they get older the salty water can be gradually added to the other water.

Temperatures are very important for young chicks and poult. A tem-

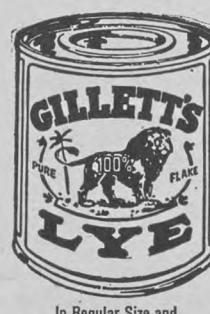
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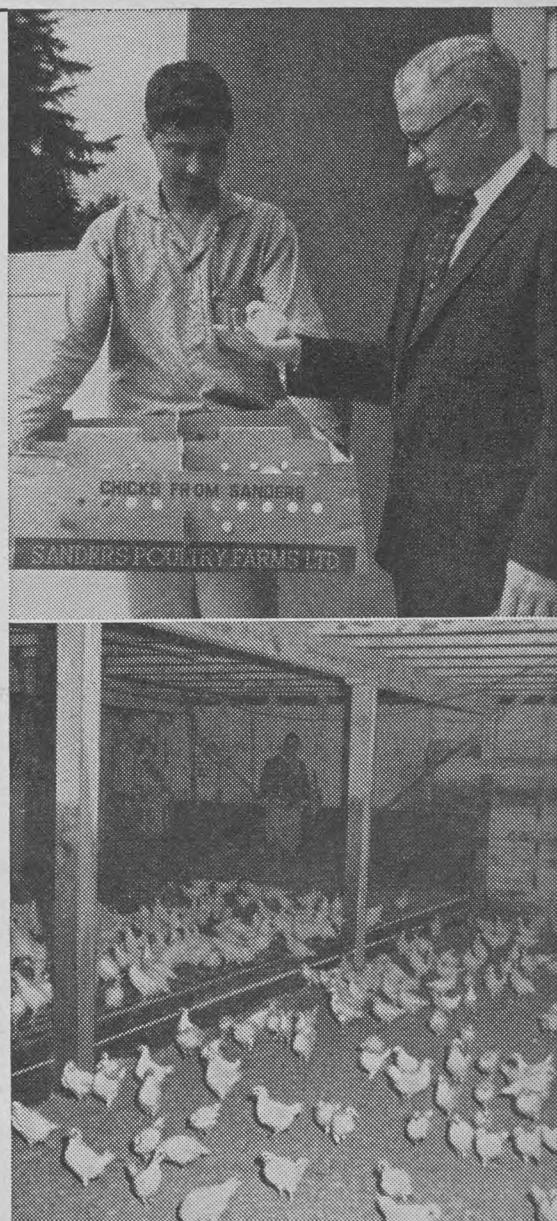
"Gillett's Lye plays an important role in our hatchery business," says Sid. "Particularly in the rearing pens where ready-to-lay pullets are raised. You need have little worry about disease and parasites if you use plenty of Gillett's Lye. Just follow the directions."

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perature of 95 degrees, at the edge of the hover and 2 inches above the floor, is generally recommended for the first week. After this it can be dropped 5 degrees each week.

It is best to use commercial feeds until the birds are at least 6 weeks old. A diet composed of whole grain and a few minerals and vitamins is not sufficient. Dr. Carlson strongly recommends checking the birds several times a day for the first 2 or 3 weeks to make sure everything in the brooder house is to their liking. ✓

Infectious Bronchitis

INFECTIOUS BRONCHITIS is a highly contagious respiratory disease in chickens, according to Dr. G. A. Chalmers, Alberta veterinary pathologist. It tends to occur in birds up to 2 weeks of age but can also affect laying hens. Dr. Chalmers says the disease is most damaging when there are several age groups on the same premises.

The mortality rate in chicks may reach 50 per cent of the flock. Severe

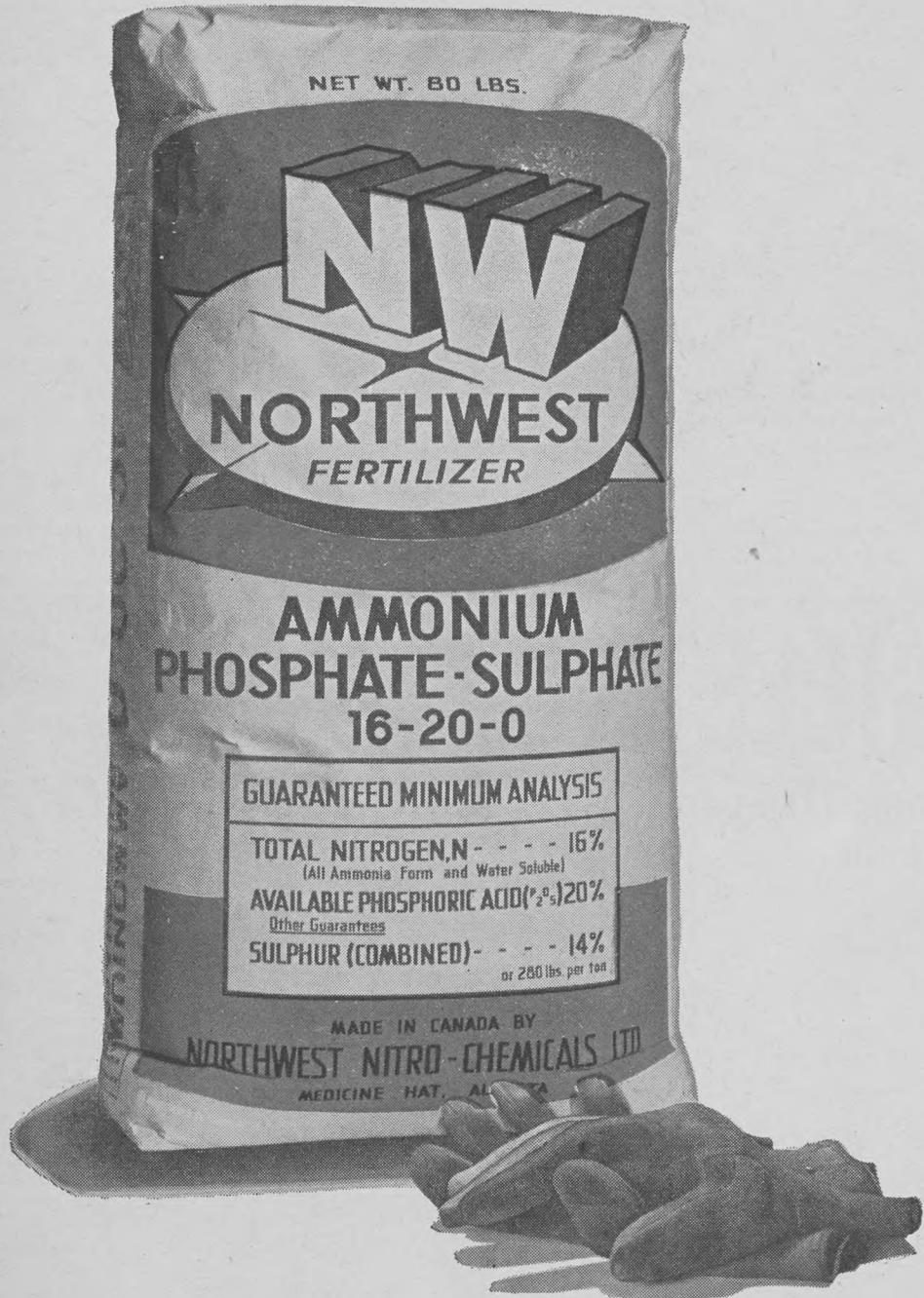
gasping, coughing, nasal discharge, wet eyes and occasionally swollen sinuses are among the symptoms which may be noticed.

In laying hens there may be a drop in feed consumption and egg production, floor eggs and coughing. The eggs become thin-shelled, rough and misshapen. Production returns gradually when the hens are treated but in many cases never reaches normal.

Vaccination has not been recommended in the past for broilers, says

Dr. Chalmers, because of the danger of triggering off an outbreak of chronic respiratory disease. However, in view of recent problems in broiler enterprises, he thinks a vaccination program may have to be instituted for day-old chicks in problem flocks as they arrive from the hatchery. It may be advisable to start chicks on a therapeutic level of a broad spectrum antibiotic because a natural infection with infectious bronchitis or vaccination may bring on a severe outbreak of chronic respiratory disease.

Dr. Chalmers advises broiler operators to consult their veterinarian for advice on a suitable program because variations in plant operations make it difficult to outline a specific policy. ✓



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Proper Summer Care

Pays Off in the Fall

GROWING PULLETS require proper summer care if they are to develop into a profitable laying flock by fall, points out Don Conrad, poultry specialist with the Saskatchewan Department of Agriculture.

"Gentle treatment, cleanliness, and healthy surroundings are the keys to proper development," he said.

Pullets may be raised in confinement or on the range but precautions must be taken in either case. Most important is correct feed. Balanced rations are essential particularly if pullets are on restricted feed and restricted artificial light. Feed is restricted to 70 per cent of full feed to delay sexual maturity and artificial light is restricted to 6 to 8 hours for the same purpose.

There is a tendency to let range chicks seek to balance their own diet. But pullets on the range eating insects, grass and grain should have their feed supplemented with calcium and protein.

Damp warm weather is a disease breeder. Frequent moving of range shelters, feeders and watering sites makes an excellent disease control.

Foxes and coyotes appear to be giving increasing trouble raiding range flocks. The Department of Natural Resources with assistance from local rural municipalities will set up winter bait stations to help keep these predators under control.

Nests should be ready for pullets when they start to lay. The presence of boxes, barrels or old homemade nests assist in training young birds to nest and helps reduce the number of "floor eggs" which are always dirty or are a complete loss because of breakage.

Birds should be inspected frequently for both internal and external parasites. If it is necessary to move birds because of disease or parasites do so in the cool of the day.

Young pullets should not be forced into egg production by feeding egg laying mash. If allowed to come into production on growing mash, eggs will be larger and production will be equally high. ✓

Fertilizers and Forage Quality

INDIRECTLY fertilizers may increase forage quality by 15 per cent or more according to Dr. R. W. Sheard of OAC. Fertilizers have an indirect influence only if proper management of the forage crop is used in conjunction with the fertilizer. Research during the past 10 years has established a relationship between digestibility or energy level and the harvest date or stage of maturity of the forage. This relationship shows that forage which is 80 per cent digestible on May 1 will decrease in digestibility at a rate of $\frac{1}{2}$ per cent per day. Therefore, by June 1 the forage would be 65 per cent digestible and by July 1 it would only be 50 per cent digestible. At the same time the yield of forage per acre is increasing.

The influence of fertilizer on forage quality is primarily through its influence on production of high yields at that time of the season when quality is also high, that is from May 24 to June 10. Yields of 2 tons of alfalfa having 65 per cent digestibility can be obtained during this period by the use of recommended rates and ratios of fertilizer. Such a yield would result in the production of 2,600 lb. per acre of digestible material. Yields of 2 tons

per acre can also be obtained by not fertilizing and waiting until July 1 to harvest. The digestibility at this date, however, is only 50 per cent and the resulting yield of digestible feed is reduced to 2,000 lb. per acre. Furthermore, the forage is less palatable so the intake is less.

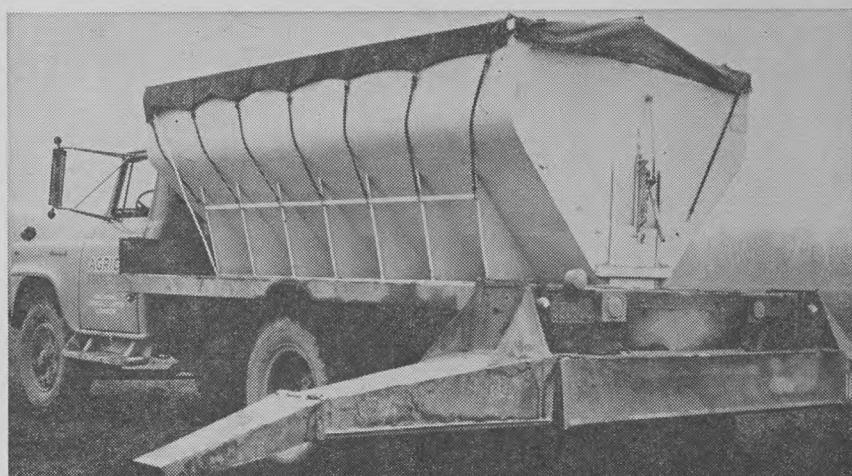
To realize the maximum benefit of fertilizer on forage quality all modern techniques of management must be employed. These involve fertilizer use according to soil test, selection of mixtures and varieties to spread the harvest over the full period, and preservation as low-moisture silage to insure storage of the material at the correct stage of growth.—P.L.

V

How to Harvest Grass Seed

MOST GRASSES can be only harvested for seed for a short period because seed tends to shatter as it ripens. This makes it necessary to watch the grass crop closely as it reaches maturity and cut it before it is dead ripe.

Selecting heads from different parts of the field, rubbing them out,



Guide photo
For high yields of top-quality forage use the best varieties available. Fertilize on the basis of soils tests and harvest early. This bulk spreader is gaining in popularity as a means of handling fertilizer on many larger farms

and examining the kernels is a good method of determining when a grass crop should be cut for seed. In general, it is ready for harvest when most of the kernels are in the firm dough stage. Russian wild ryegrass is especially subject to shattering and cutting it on the green side is better than on the too-ripe side. Russian wild ryegrass will take on a golden straw color as it ripens and must be watched every day at this time.

More and better quality seed is usually obtained if the crop is

swathed at the firm dough stage and picked up and threshed with a combine a few days later. If the grass is grown in rows 3 feet apart, the operator should be careful to drop the swath on a row and not between rows so that it can be picked up without too much loss.

Straight combining may be resorted to if grass stands are thin or get too ripe for swathing. In such cases it is necessary to have seed drying facilities available because damp grass seed heats readily. Various types of driers are available on

Buy your FEEDMASTER now... get "SPRING SPECIAL" Bonus



FEEDMASTER TRIPLE-MAGNET assures you clean, hardware-free feed. Hardware disease kills thousands of head of livestock each year!

NEW MODEL FEEDMASTER is even further ahead of all others in design, convenience

and performance. New Feed Roll attachment levels out power required for grinding baled hay and ear corn. Assures a steady flow of material to hammer mill. Add this to Feedmaster's many farm-proven features and you have the best grinder-mixer available.

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You get the newest and finest grinder-mixer available at any price! And, your Feedmaster dealer will include, at no extra cost, a \$60.00 triple-magnet plate to assure you clean, hardware-free feed.



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FIRST IN FARM MATERIALS-HANDLING

FARMHAND DIVISION OF DAFFIN CORPORATION

WINNIPEG, CANADA

HESSTONIZED HAY wins at Royal Winter Fair!



This bale of hay, produced with a Hesston 260 Windrower-Conditioner, bears the first-prize ribbon of the Royal Winter Fair. At left is prize-winner Donald Bagg, with Truman Nelles, who operates the Hesston.

When Norman and Donald Bagg, co-owners of Edgelea Jersey Farm, Woodbridge, Ontario, bought a new Hesston 260, they cut just 30 acres when it began to rain. In their words, "It rained off and on for a week. We thought we had had it. When the sun finally came out, we gave it a quarter turn in the morning, and baled that afternoon. It made excellent hay."

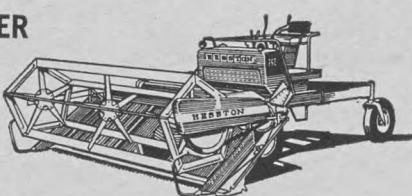
"We've taken off the best hay we have ever made, since buying the Hesston," they say, "and with much less work."

Proof that Hesstonized Hay is tops, came at the Royal Winter Fair, when Edgelea Farm hay was awarded the first-place ribbon.

With the Hesston 260 Windrower-Conditioner you cut, condition, and windrow in one pass... and the hay is so special it has its own name. Hesstonized Hay has proven profitable for Norman and Donald Bagg, and for other farmers all over Canada. Best of all, a Hesston Windrower gives unmatched versatility in over 30 crops. Get the full story from your Hesston dealer today.

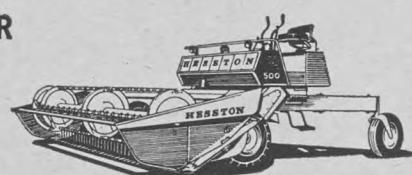
HESSTON 260 DRAPER WINDROWER

The model that set the pace for the industry, proven for durability, comfort and profit. Has same one-hand Trim Steering and excellent flotation as 500. Comes in 10', 12', 14' and 16'.



HESSTON 500 AUGER WINDROWER

The only auger windrower on the market already proven in the field. Gives high speed for big acreages. Gas, diesel, air or water cooled engine, and 12', 14', 16' widths featuring continuous hay flow conditioning.



HESSTON / CHAMPION of every Challenge!

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SOILS AND CROPS

the market but they should be installed and ready to operate well ahead of the seed harvest or it will be too late.

Combine settings and adjustments are largely made on a trial and error basis but the following suggestions may prove helpful:

1. Set cylinder same as for wheat.
2. Set sieves $\frac{1}{2}$ to $\frac{1}{2}$ open.
3. Slow fan speed to minimum.
4. Close off wind control doors.
5. Direct air blast toward front of sieves.
6. Reduce operating speed of the pick-up to minimize shattering.
7. Remember, it is nearly impossible to obtain perfectly clean seed from the combine.
8. If the seed is very dirty, run it through the combine before cleaning.

Seeding:

Sow field peas at least 2 inches deep in a well prepared seed bed, Mr. Durksen says. Early seeding, during the first 2 weeks of May, is best. The soil is then relatively warm and the peas grow during the cooler portion of the summer. Early seeding also reduces the danger of disease infestation.

Recommended rate of seeding is 2 bushels per acre for Chancellor and Creamette and $2\frac{1}{2}$ to 3 bushels per acre for Arthur.

Apply fertilizer as a side band and not directly with the seed. On summerfallow land use about 40 lb. of 11-48-0.

Weed Control:

Peas may be harrowed at least once before emergence and, if necessary, two or more times before the 4-to 6-leaf stage after emergence. A rotary hoe, finger weeder or flexible harrow can be used for the post-emergence operations.

For wild oat control, apply either $1\frac{1}{2}$ lb. per acre of Avadex BW before seeding or 4 to 5 oz. of Carbyne after emergence. Carbyne should be applied with low volume of about 4 gallon of water per acre and a high pressure of at least 45 lb. per square inch. Follow container label instructions carefully.

For broad leaved weeds, use MCPA amine at 4 to 5 oz. per acre or the sodium salt at 5 to 6 oz. per acre. Apply MCPA when the plants are from 4 to 8 inches high with at least 15 gallons of water per acre.

Field peas are used mainly in soups, although some high protein livestock feeds contain field pea meal. Last year, a total of 37,000 acres was grown but the market could absorb the production from at least 50,000 acres.

Treating Seed Pays Off

CROP LOSSES from soil and seed-borne diseases may be prevented by treating seed now with a recommended fungicide, say crop specialists.

An investment of a few cents per acre in seed treating chemicals may be repaid many times through improved yield and quality. Chemicals available from most farm supplies dealers protect cereals and some special crops from bunt, blights, smuts and seed rotting organisms.

Treatment of durum wheat, rye and flax is particularly important since the kernels tend to be cracked or broken. Disease organisms can penetrate even the most minute cracks in the kernels.

Chemicals containing organic mercury compounds provide the widest range of control. These are available both as dusts and liquids. Cost of treatment is about 5 cents per bushel.

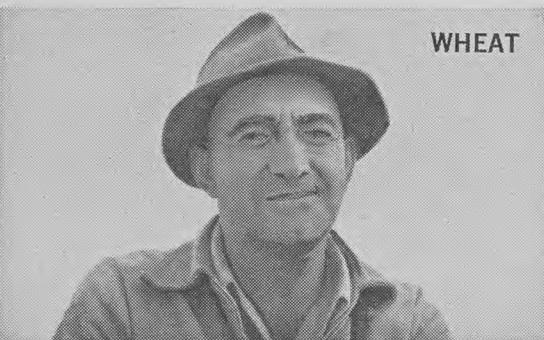
Liquid mercury formulations are applied at the rate of three-quarters of a fluid ounce per bushel of wheat, oats or barley. On flax, use $1\frac{1}{2}$ fluid ounces per bushel. One gallon will

(Please turn to page 38)

HERE'S WHAT CARBYNE USERS SAY

Since Carbyne was introduced three years ago, farmers have proven its effectiveness on more than one million acres of crops. Read how Carbyne helped these users get cleaner fields and bigger yields:

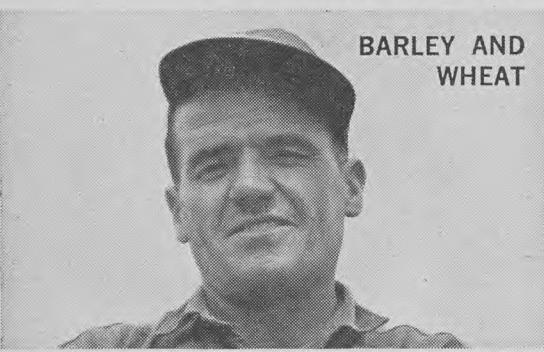
WHEAT



"I got at least a ten-bushel-per-acre increase by using Carbyne to control wild oats in my wheat. The results were excellent. It makes the crop a lot easier to handle at harvest time. I wouldn't be without Carbyne for wild oat control in my wheat and barley."

Ed Trautman, Barrhead, Alberta

BARLEY AND
WHEAT



"By using Carbyne to control wild oats, it allows me to grow good stubble crops. I can seed barley and wheat earlier, then use Carbyne to kill wild oats if they appear. I've been able to get good results by spraying only the heavily infested areas."

Eugene Kalinchuk, Bowsman, Manitoba

WHEAT



"I've used Carbyne for four years on wheat. Control has been excellent—about 85 per cent—and yields have been increased by as much as 15 to 20 bushels an acre in the low areas. We can really grow crops in the sloughs when we control wild oats with Carbyne!"

Gordon Brooks, Belle Plaine, Saskatchewan

RAPSEED AND
WHEAT



"I've used Carbyne on rapeseed and wheat for four years and had fine results each time. I've had as high as 14 bushels increase in wheat yields. Using Carbyne to control wild oats permits me to seed rapeseed on stubble, and therefore grow an extra crop. Carbyne definitely pays!"

Jack Ballantine, Irma, Alberta



Results are easy to see when you spray Carbyne to kill wild oats. In this barley field, wild oats are thick in the unsprayed "skip" at left. The Carbyne-treated grain is clean!

Carbyne kills wild oats for cleaner fields and bigger yields

An average wild oat infestation cuts your wheat or barley yields by at least 6 bushels an acre. It's almost certain that you will be faced with this costly weed problem in at least part of your cropland this Spring.

The modern answer is Carbyne. A single spraying of farm-proven Carbyne at the right time kills wild oats where they are growing in your crops. Applied according to label instructions, Carbyne will provide the most efficient wild oat control yet devised.

Because Carbyne kills wild oats after you see them, spraying can be limited to only the infested parts of your crops. No need to waste time and money on the uninfested areas.

Protects Crop Profits

With Carbyne in your plans, there is no reason to delay seeding to plow under that first flush of wild oats. You can plant just as soon as soil and weather conditions permit. That does away with late maturity risks and the extra growing time adds bonus yields.

Spraying Carbyne to kill wild oats pays several other ways, too. Your crops have less competition for moisture, fertilizer and natural soil nutrients. Row crop cultivation is easier. Future wild oat infestation is reduced.

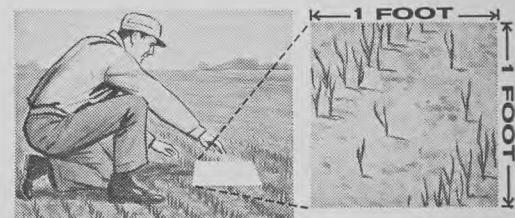
9 Approved Crops

Over the past three years, farmers have used Carbyne to kill wild oats on more than one million acres of crops. It is approved and recommended for use in Spring wheat, durum wheat, barley, sugar beets, flax, peas, mustard, rape and sunflower.

Carbyne is mixed with water and sprayed directly on the growing crop during the 2-leaf stage of the wild oats—as explained in detail on the label.

Know When to Spray

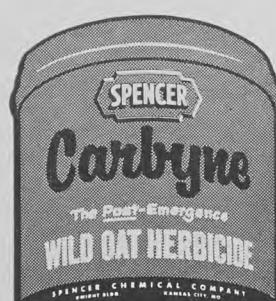
One spraying at the right time does the job. Just follow the label instructions carefully. That's important. So, don't be trapped into a last minute rush. Right now is the best time to get acquainted with Carbyne. The fact-filled 1964 Carbyne wild oat control folder (shown below) is available at nearby farm chemical dealers now. Pick up your free copy this week.



How to spot a wild oat problem in time to do something about it:

Unless you know just what to look for, it is easy to underestimate the threat of wild oats in a young crop. During the first five to ten days after seeding, it is difficult to spot even a heavy infestation from the road. Yet, this is the most critical time. Close inspection by walking the fields is the only answer.

As few as four wild oat plants per square foot (as shown right above) can cause serious yield losses. When your fields look like this, you'll be money ahead to spray Carbyne as directed on the can label.



FREE fact-filled 1964 Carbyne folders in full color are now available from

CHIPMAN CHEMICALS, LIMITED and
UNITED GRAIN GROWERS, LIMITED or their dealers

Carbyne is a registered trademark of Spencer Chemical Company, Kansas City, Missouri

SOILS AND CROPS

(Continued from page 36)

treat 213 bushels of cereal seed or 107 bushels of flax.

Apply mercury powders at the rate of one-half ounce per bushel of wheat, oats, or barley, and 1½ ounces per bushel of flax.

Powders containing captan may be used on flax, field peas and field beans. These control a fairly broad range of organisms.

Wireworm control as well as disease control may be obtained by

using specially prepared mercuric chemicals containing aldrin, heptachlor or lindane. These should be used only if a wireworm infestation is likely since they can reduce seed germination—particularly on wheat. If wireworms were a problem last season, these dual chemicals could be a good investment even though they cost from 25 to 60 cents per acre.

Wireworm control alone is obtained by using insecticide preparations containing aldrin, heptachlor

or lindane. Cost is from 10 to 20 cents per acre.

The chemical "Gammasan" can be used on rapeseed and mustard seed for flea beetle control. The suggested rate is one-half ounce per acre. Cost is from 40 to 60 cents per acre. This treatment will provide short-term protection to seedlings after emergence.

Machines for mixing chemicals and seed are readily available at low cost. They range from "drip" application for grain augers to gravity dusters and liquid spray treaters. Liquid spray treaters that deliver a fine spray are recommended when

the weather is cool. They provide a more uniform coverage of the seed. Each machine must be carefully calibrated.

Wheat and flax should be treated at least 24 hours before sowing. Barley and oats should be treated at least 7 days before sowing. V

New Sunflower Variety Licensed

A NEW sunflower variety which produces large seed has been licensed by the Canada Department of Agriculture.

Selected from the variety Mennonite, the new variety, Commander was produced at the federal experimental farm at Morden, Man. The new variety is superior to Mennonite in the yield of large seed.

Dr. E. D. Putt, head of the special crops section at Morden, says that in five seasons the average yield per acre of seed passing over a No. 18 screen (one with openings 18/64 of an inch in diameter) was 1,675 lb. for Commander compared with 1,279 lb. for Mennonite.

In 36 tests across the prairies in the period 1961 to 1963, the average per-acre yield of seed over the No. 18 screen was 719 lb. for the new variety and 480 for Mennonite.

Although superior to Mennonite in producing large seed, the two are similar in total seed yield. They are also similar in days to bloom, days to maturity, neck strength, resistance to lodging, height of plant, and similar in reaction to rust, leaf mottle disease or Verticillium wilt, and downy mildew disease.

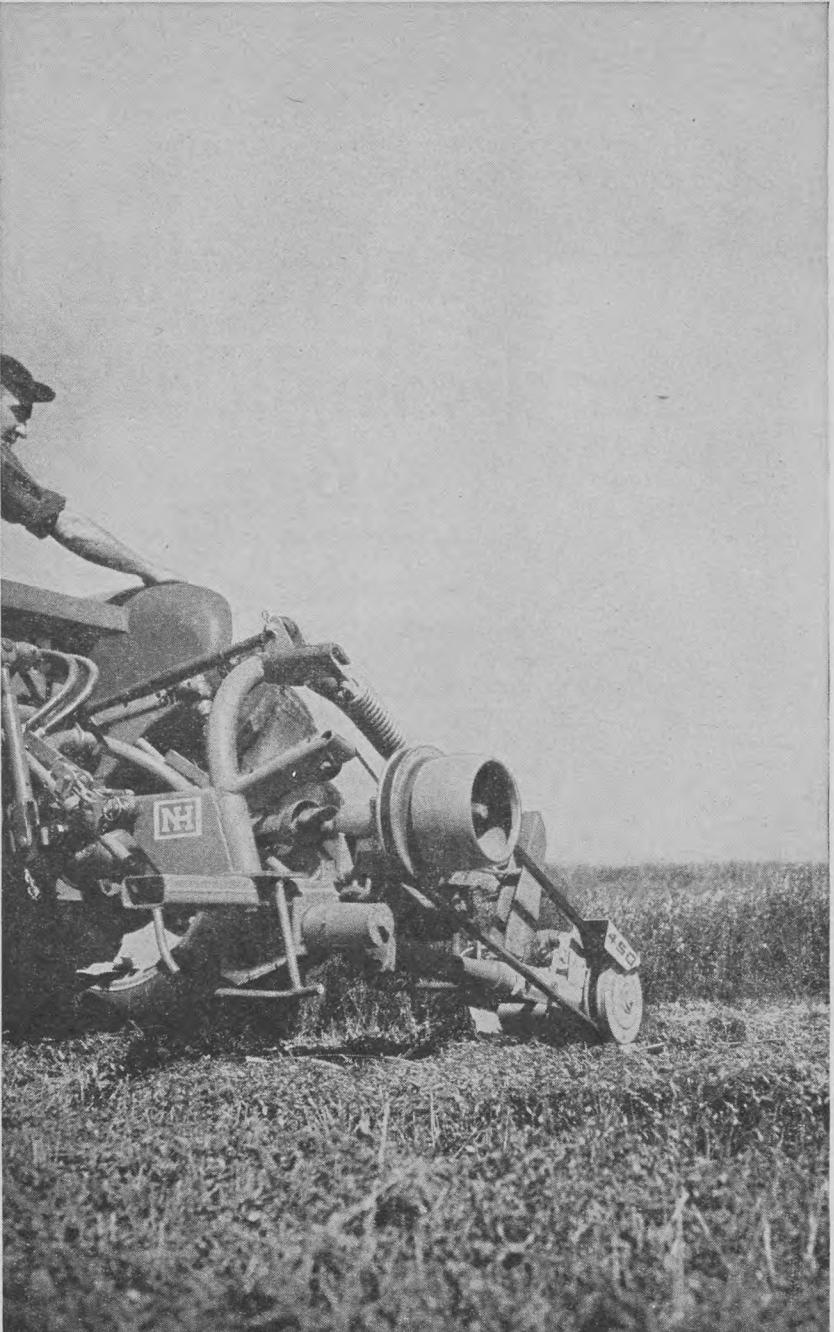
Dr. Putt reports that foundation seed of Commander is available to experienced sunflower growers for planting this spring.

To produce certified seed, it must be grown in accordance with regulations of the Canadian Seed Growers' Association, Dr. Putt explains. The most important requirement is that fields of Commander must be isolated by at least ½-mile from all other varieties of sunflowers, including wild annuals.

Selected growers may obtain Commander seed by applying to A. B. Masson, Seed Office, Canada Department of Agriculture, 518 Dominion Public Building, Winnipeg, Man. V

Profit in Nature Trails?

UNIVERSITY OF MAINE researchers figure a woodlot nature trail will make a profit as well as bring pleasure to visitors. In studies at the university forest, the first step in laying out trails was to look at a topographic map and air photos of the entire area. Major costs in developing a trail program were toilet facilities, signs and a shelter at the entrance. Facilities proposed for 7.3 miles of trails at the university would cost about \$5,300 under contract. If a woodlot owner and his family did all the work, cash outlay would be about \$500. The specialists say trail fees might be 50 cents for adults and 25 cents for children; or 25 cents for adults and 10 cents for children. V



Five models: mounted pitmanless "450", trailing pitmanless "455" and three economy pitman models.

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mowing with...**

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NEW HOLLAND MACHINE COMPANY (CANADA) LIMITED, OTTAWA AND REGINA

Navy Beans Popular in Some Areas

WHITE-SEEDED navy beans are becoming increasingly popular with Manitoba farmers.

The upsurge in interest is due to the introduction of the new early varieties Seaway and Sanilac and to the development of better methods of growing them.

There's a market for up to 10,000 bushels of navy beans in Manitoba every year.

In a 3-year test at the CDA's experimental farm at Morden, Seaway and Sanilac yielded an average of 30 to 35 bushels of cleaned seed per acre, according to researcher Dr. Charles Walkof. They matured early (September 6) when grown on heavy loam soil.

By comparison, Michilite—a standard variety—yielded 25 to 30 bushels and ripened on September 12.

Seed size is important to the processor. Most desirable are navy beans that weigh 175 grams per 1,000 seeds. In the test, Seaway weighed 175, Sanilac 160, and Michilite 170.

For an early harvest at Morden, says Dr. Walkof, the best seeding date varied from May 20 to 25. Cold soil and late spring frosts made earlier planting risky.

Seeding beans at a depth of 1 to 2 inches gave the best results.

Most soils will produce good yields of navy beans although harvesting problems occur in light sandy loam. Generally, the soft sandy soil does not provide the resistance necessary to shear off bean plants with harvesting equipment. V

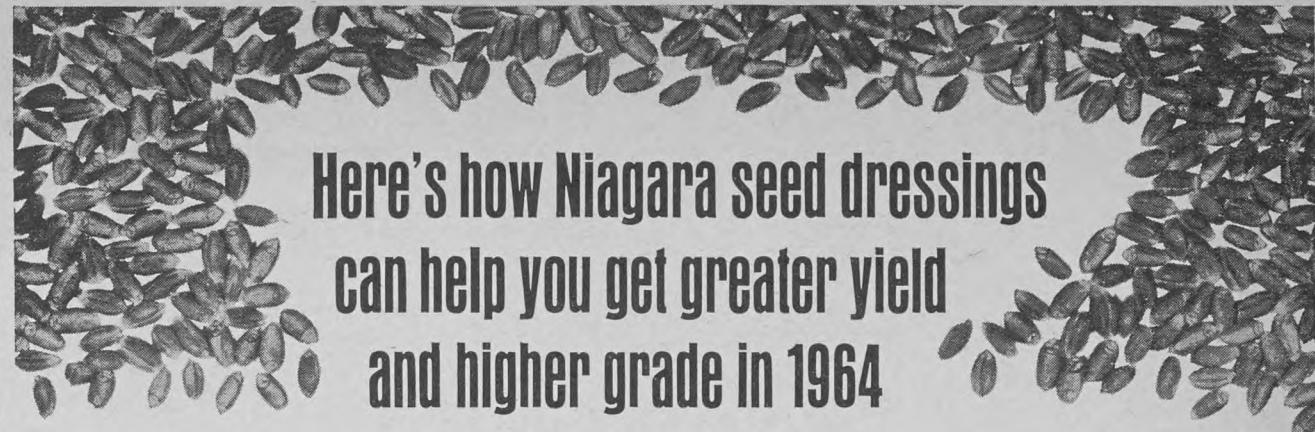
Hay Wafering Still to Gain Acceptance

HAY WAFERING isn't something that will be carried on generally in 1964 but it offers some interesting possibilities for the future. This was the opinion presented by Larry Argue, agricultural engineering fieldman, to the Peel County, Ont., farmers.

Cost of wafering is still too high because of the high cost of machinery needed for the job. At the present time it costs twice as much to wafer as to bale, even if the wafering machine is used for a maximum amount of hay. However, when hay is wafered much less storage space is needed and it is easier to handle. Another advantage is that it is possible to direct cut hay and make it into wafers in one operation, which means that the weather is not such a major factor at haying time. V

Fodder Bank

RUSSELL BOWEN, Benton County, Ark., follows three main practices on his 450-acre beef operation to avert drought damage: In good years he puts up a surplus of silage. He maintains a balanced year-round pasture program including 70 acres of common Bermuda, 75 acres of fescue and clover, 20 acres of alfalfa, and 16 acres of orchard grass in addition to planting some sorghum each year. He also keeps a small sprinkler system available to irrigate part of his pastures and hay meadows. V



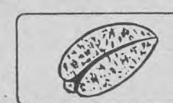
Here's how Niagara seed dressings can help you get greater yield and higher grade in 1964

Only seed protected against smut, root rot, seedling blight and wireworms will give you top yields. □ Protect your seed this year. At a cost of less than 10c per acre, you can increase your yield by as much as 3 bushels (worth more than \$3.00) an acre. And the crop you get from treated seed often grades higher. □ What's more, you save on seed because you may need to use only two-thirds as much treated seed in areas where you have formerly had to seed heavily to get even an average yield! □ Make 1964 your year to let Niagara help you get cleaner crops, higher yield, and better grades!

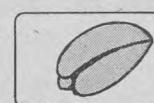


Niagara has three liquid seed protectants to help you in 1964 —Gallotox, for protection against smut, root rots and seedling blight . . . Heptadrin, high-concentrate wireworm killer . . . and Gallodual for both disease and wireworms. □ Superior wetting agents in all three crawl over the seed to help you get higher yields and better grades. (If you prefer powders, Niagara Brand offers Puraseed and Puradrin.)

Niagara Seed Dressings are SAFE! Because they do not give off harmful mercury fumes. FAST! They work immediately and can be used on seed with or without storage. Treat and sow right away if you wish. PLEASANT! No stinky fumes. EASY! Especially with a Niamist 200.



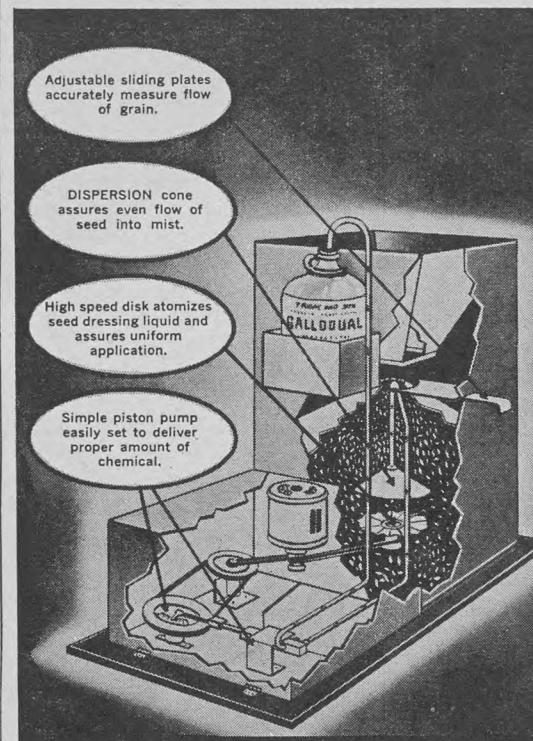
Seed treated by Niamist 200
Perfect coverage



Seed treated by conventional methods
Harmful overdose



Seed treated by conventional methods
Missed completely



And read about this special discount offer on Niagara's on-the-farm-seed-treater—

The Niamist 200

This is the on-the-farm seed treater that treats each seed individually as it drops through the mist. Guess work is eliminated. Every seed gets the right amount of chemical—no overdosed or untreated kernels—so that you get ideal germination rates. And now Niagara offers a special discount rate on the Niamist 200. The Niamist is regularly priced at \$119.50 (with motor). Niagara Brand offers you a discount of \$2.00 per gallon of chemical for the first 5 gallons of Niagara Brand Seed Dressing you buy . . . \$1.00 per gallon on the next 10 gallons . . . for a maximum discount of \$20. Your chance to buy the marvellous Niamist 200 for as little as \$99.50.

Niagara

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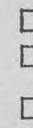
More information about the Niamist 200

A Farmer's Guide to Proper Seed Treating Practices (booklet)

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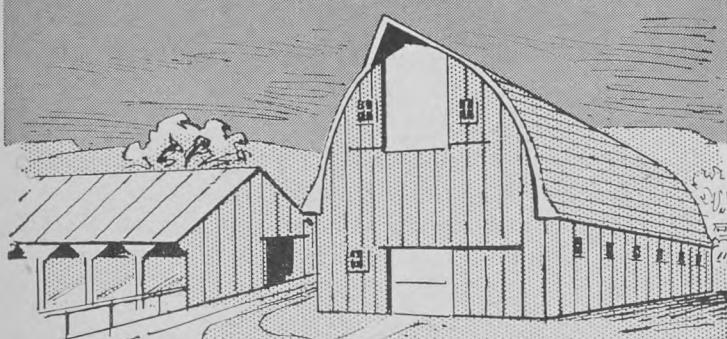
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SOILS AND CROPS

Weed Control in Forage Crops

Herbicides help maintain high-yielding forage stands



[Guide photo]

Livestock numbers affect pasture quality. Too few—and the weeds may go to seed while too many retards plant growth

AS WE PROGRESS toward simple mixtures and increased emphasis on higher forage yield and quality, our need for a weed-free environment increases. There are many advantages to forage seedlings that consist of only a few species, but to capitalize on these, weed control must be excellent. Fortunately, as the number of crop species is reduced, it becomes easier to adapt chemicals and other weed control tools.

G. W. Anderson, of O.A.C. Crop Science Department, delivered this and other topical advice in his address to the Ontario Soil and Crop Improvement meetings. If forages are to completely complement or compete with grains in feeding programs, we must be able to increase or at least predict the amount and quality of material produced.

The presence of weeds decreases the chances of getting yield increases or accurate assessments of yield or quality. As the ratio of weeds in a stand increases, however, there is a point at which yields begin to decline. No one can clearly define this point, but once it is reached, forage seeding must soon be renewed in some way. From the standpoint of quality as measured by the amount of nutrients per acre, weeds are at least a diluting agent. Feed dilution is, however, a minor consideration compared to the effects of digestive disturbances and more noticeable signs of poisoning which can be attributed to some weeds.

When weeds are controlled, the most reliable means of starting a forage crop is to seed it without a companion crop. When pure stands of alfalfa or birdsfoot trefoil are seeded, 2,4-DB at a rate of 16-20 oz. (active) per acre and 4 lb. dalapon (product) can be used to control many broadleaf and grass seedlings. If these chemicals are applied when the legumes have 2 or 3 true leaves they will usually contact the weed seedlings at the correct stage. If common mustard is present, the chemical may have to be applied slightly earlier, for this weed becomes fairly resistant when it is taller than 2 inches. With white cockle, there has been an advantage in making two applications of 10 oz. per acre of 2,4-DB, the first when the legumes are in the 2-3 leaf stage

and the second when the cockle has 2-3 inches of new growth. If forage grasses such as timothy, orchard grass or brome are seeded, annual grass weeds may be a problem because in this case Dalapon cannot be used.

As the ratio of weeds to forage increases because cattle have refused to eat them or there has been a slip-up somewhere in management, there comes a moment of decision—whether to renew the stand or attempt to rescue the existing stand. Usually the wise decision is to renew the stand, especially if it is necessary to have the field producing at top capacity. But there are some exceptions.

For instance, 2,4-DB could be used to rescue a weedy field of birdsfoot trefoil from some broadleaf weeds; Dalapon or Paraquat could be used to suppress many of the grasses until new trefoil seedlings are established; 2,4-DB could be used to remove a thick stand of thistles, curled dock, yellow rocket or chicory from a stand of alfalfa. There would be some suppression of the legume but if a thick stand of weeds were quickly removed the end result could be satisfactory.

This legume suppression seems to last for 2 or 3 weeks or until new growth begins to contribute to yield. It can be kept to a minimum when there is a small amount of top growth on the legume in early spring, in the fall or after the forage is cut.

On grass pastures, there is a long list of broadleaf weeds that can be killed with a proper application of 2,4-D or brushkill.—P.L. V



'63 TESTS CONFIRM AVADEX BW SUCCESS!

CROP YIELDS HIGHER IN CEREAL GRAINS BY 40%

Field Tests Conducted by Canadian Experimental Farms Demonstrate Monsanto Wild Oat Killer's Effectiveness

CONCLUSIVE NEW EVIDENCE that Avadex* BW wild oat herbicide increases yields of wheat and barley has recently come from the heart of Canada's vast grain-growing prairie provinces.

During the spring and summer of 1963, agricultural scientists at two Experimental Farms in Saskatchewan conducted a series of extensive field tests to determine how significantly wild oat control with Avadex BW affects per-acre crop yields. Monsanto's Avadex BW is already being widely used by farmers in the United States, Canada, Europe and Latin America to kill destructive wild oats (*avena fatua*) plants as they germinate in wheat and barley.

The results of these experiments were announced in December at the annual meeting of the Western Section of the National Weed Committee of Canada at Vancouver, British Columbia. The tests showed that, when properly applied, Avadex BW provided excellent control of wild oats and, more importantly, increased crop yields in the test fields as much as 40%. The Experimental Farm located at Indian Head, Saskatchewan, reported that Avadex BW applied at the recommended rate of 1 to 1½ Imperial quarts per acre increased wheat yields an average of 11 bushels per acre over adjacent "check" areas which were not treated with the chemical. Applications on wheat included both pre- and post-seeding treatments.

Barley, when treated after seeding at rates of 1¼ to 1½ Imperial quarts per acre, yielded approximately 17 more bushels to the acre than the untreated "check" areas (see Table I). Similar experiments conducted by another Experimental Farm at Regina, Saskatchewan, confirmed these results.

Basic test conditions were the same for the entire series of Avadex BW experiments. Pembina wheat and Parkland barley were used in all tests, and planted to a

TABLE I: Wild Oat Control and Yield Data

Application: Quarts Per Acre	WHEAT		BARLEY	
	Wild Oat Count Per Square Yard	Yield in Bushels Per Acre	Wild Oat Count Per Square Yard	Yield in Bushels Per Acre
Avadex BW @ 1 @ 1¼ @ 1½	4	38.7	2	56.5
	1	38.8	1	58.5
	2	40.7	3	59.6
Check (Untreated)	117	27.8	99	41.7

(Source: Experimental Farm, Indian Head, Saskatchewan, Canada)

depth of three inches. To keep the degree of weed infestation common in each plot, scientists sowed the same amount of wild oat seeds in all areas under test. The land was summerfallow ground which had received no preparatory spring tillage. Avadex BW was sprayed at various rates using 5½ Imperial gallons of water per acre. The chemical was immediately incorporated into the soil with two harrowings either before or after seeding the crop, depending

upon the particular test being conducted. Growing conditions were favorable over the entire season with precipitation above normal (an ideal condition for the growth of wild oats).

At Regina, scientists conducted a separate series of tests to determine the importance of harrowing to an Avadex BW treatment in wheat. They found only a slight difference in wild oat control between incorporation with one or two harrowings, as the data in Table II indicates. However, to insure adequate soil incorporation in summerfallow ground—and maximum kill of wild oats—Monsanto scientists recommend two harrowings for best results.

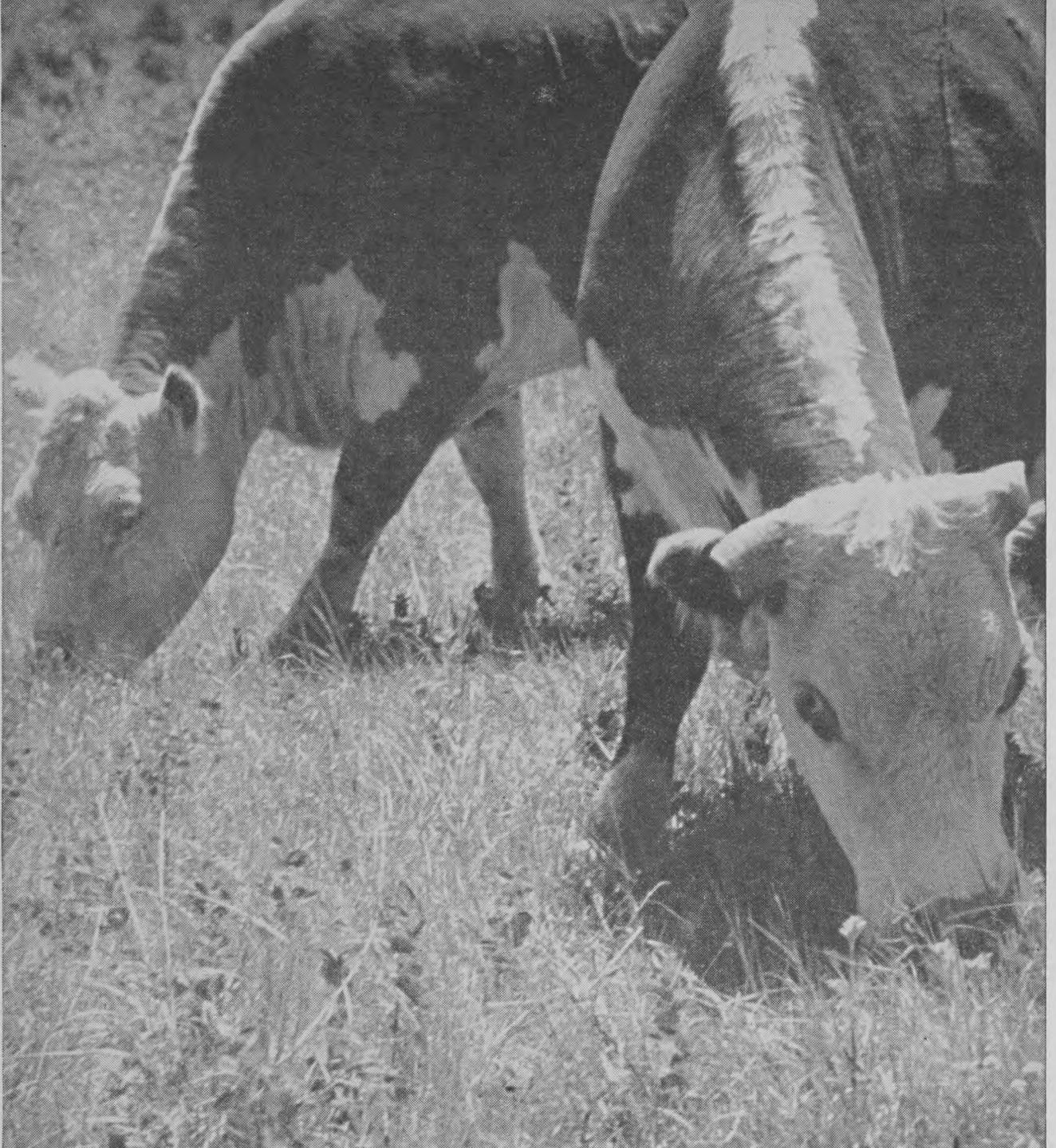
The scientists managing these tests were careful to follow correct application procedures recommended for Avadex BW. They applied the chemical when the soil was in good working condition, used the right spray pressures and nozzles, set the spray boom at the best height to assure good coverage. And, they made sure the chemical was well incorporated into the soil immediately after spraying. As with most agricultural chemicals, proper application is the key to success with Avadex BW.

TABLE II
Effect of Soil Incorporation on
Wild Oat Control and Yields

Treatment	Wild Oat Count Per Square Yard	Wheat Yields in Bushels Per Acre
Avadex BW— harrow once	9.9	47.0
Avadex BW— harrow twice	5.1	47.6
Check (Untreated)— harrow once	73.8	30.2

(Source: Experimental Farm, Regina, Saskatchewan, Canada)

*Trademark registered—Monsanto Chemical Company



Plant Corn Early

FEW PRACTICES affect corn yields as much as does the date of planting. This is the experience of W. W. Snow of the Western Ontario Agricultural School at Ridgetown, Ont.

For years, it was considered that corn should be planted only when it was possible to get it up in a hurry. This was important when seed was sold without a fungicide treatment, but it is not necessary today. Often, corn has been in the ground 3 weeks before emergence with very little loss in the number of plants coming up.

Corn requires a long season to mature and the sooner it is planted the more chance it has to emerge and produce a decent crop.

When you look at the combination of a decrease in yield and increase of moisture, it works out to a loss of almost \$1 per day for delaying planting from May 11 to June 8. The loss during the May 11 to May 19 period isn't as high, but still large enough to consider.

Since early planting produces highest grain yields, planting silage corn early will produce a larger amount of grain in the product.

The amount of fodder produced from different dates of planting doesn't vary as much as does the grain. Therefore there will be a richer silage from planting early. This high grain silage could reduce or even eliminate feeding grain with the silage.

Planting silage early (May 10) has produced a plant that is more than one-half grain. When we reach 50-55 per cent grain in the silage, we are approaching a point where very little supplemental grain must be fed. This "rich" silage is worth more per ton for feeding.

Snow also has some advice on desirable plant populations for various levels of fertility.

The effects of corn seeding rates are very dependent on fertility and rainfall. With high fertility and adequate moisture, a higher population can be used with good results. Under low fertility, there isn't enough plant food to support a large number of plants per acre. Thick planting in a dry year results in plants without ears, poor cob filling and very small cobs.

If we are sure of having enough rainfall and heat on a well fertilized soil, our populations could be much higher and we could produce maximum yields from that crop.

At present, we have to compromise on our rate of seeding to attempt to get high yields with some safety.

In southwestern Ontario, the best final population should be between 16,000 and 20,000 plants per acre, all other things being equal. Final population is not the same as kernels planted. Usually a mortality of 10-20 per cent must be expected for the average crop of corn.

This means that it is necessary to plant about 18,000 seeds to get 16,000 plants and over 20,000 seeds to get 18,000 plants.—P.L. V

3118

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Clare Burt

well-known farmer, agricultural consultant and broadcaster,
**reports why so many of Canada's farmers
insist on CHRYSLER-BUILT TRUCKS**

Clare Burt visits hundreds of farms in his search for stories and news. On many of them, he finds Fargo or Dodge trucks playing an important part in the efficient running of the farm. Like all good reporters, he gets the facts. Here are three typical case histories:

they use Chrysler-built trucks. They have a big Fargo C900, a Dodge C700 and a Fargo D200 pickup. These trucks have proved themselves capable of hauling very heavy loads over rough roads as well as highways. Winter and summer, no matter how tough the going, they've never let the Lussier brothers down.

In addition to all this reliability, they report very good gas mileage . . . an important cost factor when the trucks spend so much time on the road. Another big plus, so far as the Lussier brothers are concerned, is the service they get from their local dealer. They describe it simply as, "The best."

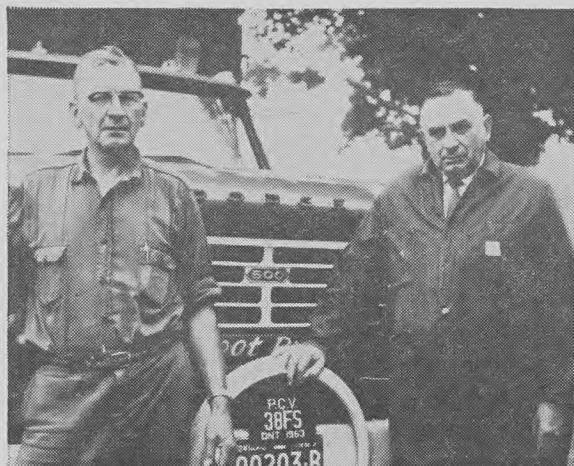
When asked if they would continue to buy Chrysler-built trucks they both agreed emphatically that they would. "Why should we take a chance on some other truck when we know that Chrysler's trucks are so good and will stand up to our kind of work," they told me.



Henry Hoeppner,
R.R. #2, Morden, Manitoba.

Henry Hoeppner, Morden, Manitoba, has been using Fargo trucks for many years. He runs a farm, specializing in growing canning crops and raising a beef herd. For many years, he has been contracted by the local cannery to haul away cannery waste. He puts this waste to good use, stacking it on his farm and using it as an inexpensive form of silage for his beef herd. Handling this soggy, heavy cannery waste calls for a rugged, powerful truck. And what's more it has to be trucked away quickly and efficiently when the cannery season is in full swing. This, he claims, is the main reason he uses Fargo trucks. "Fargo trucks are tops in every respect," he told me. "They're reliable, need little maintenance and give good gas mileage."

"Henry Hoeppner is typical of many farmers I meet on my travels," reports Clare Burt. "He runs an efficient farm and is always looking for new ways to make it more profitable." Next time you're in the market for a new truck be sure to see your local Chrysler dealer.

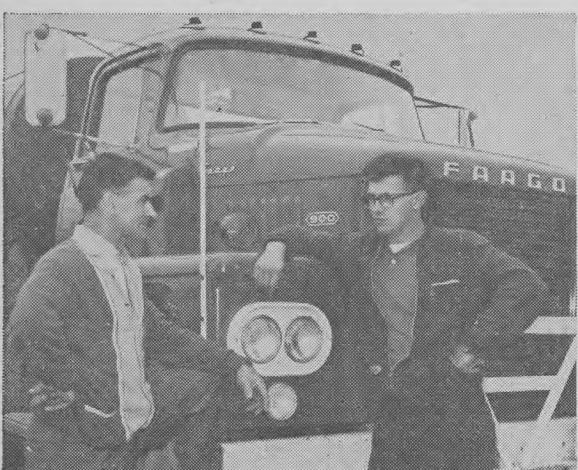


Root Bros.,
Orton, Ontario.

For many years, John & Haines Root, Orton, Ontario, have been operating a farm trucking service in their area in addition to running the family farm.

They have been Chrysler customers for many, many years and are now driving their seventh consecutive Dodge truck. They like the many advanced Chrysler features and have found they stand up to the everyday wear and tear of rough country roads the year 'round. They are now driving a 1963 Dodge truck. They traded in a 1961 model which, in more than 100,000 miles, had never even had the head off.

"With the satisfaction we get from driving our Dodge trucks and the service we get from our local Dodge dealer," said Mr. Root, "we'll continue to drive Chrysler products, both cars and trucks, for many years to come. Let's face it . . . You just can't ignore their 5 year-50,000 mile warranty. That's what I call a real warranty."



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The Lussier brothers of St. Antoine Abbé, Quebec, know the value of dependability in their trucks. As apple wholesalers to some of Montreal's largest supermarket chains, handling some 200,000 bushels of apples a year, they must be able to guarantee delivery all year round. That's why



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Lawn Grasses for the Dry Prairies

Trials at Swift Current show that grasses best suited for watered lawns are the poorest where no water is used

IF YOUR FARM is in the dry and open prairies, and you want to spruce up the farmstead with a new

lawn, the kind of grass you use should depend on whether or not you have water for sprinkling.

In lawn trials carried on during the past 5 years at the Swift Current Experimental Farm, it has been demonstrated that the grasses best suited for watered lawns were the poorest where no water was used, and vice versa.

The best grasses for watered lawns are Merion bluegrass, Kentucky bluegrass, creeping red fescue or any mixture of these three. In the dry lawns, which received no supplemental water, the best grasses are Russian wild ryegrass, sheep's fescue (or hard fescue), streambank wheatgrass (Sodar wheatgrass) and, of course, crested wheatgrass.

Various measurements were used during the 5 years of trials, to appraise the grasses. These included persistence of stand, weediness, winter killing, color appeal, ease of cutting, rate of growth and softness or sponginess of the turf.

The best grasses for watered lawns



[CDA photos]

Sponginess is due to depth of organic build-up. From left to right are cores of brome, crested wheat, sheep's fescue, Kentucky bluegrass, creeping red fescue and Merion bluegrass. Cores were all taken from plots which got water

(bluegrasses and creeping red fescue) were no good for dry lawns because of two reasons: they had poor weed resistance; and they died out completely by the fourth year. Without water, they became weedy by the second year, killed out about 50 per cent by the third year and were completely dead by the fourth.

Russian wild ryegrass, sheep's fescue, streambank wheatgrass and crested wheatgrass which are all good for dry land, were no good for watered lawns because they

never did provide a very spongy lawn even with water, were relatively hard to mow, and were soon weedy with dandelions and other moisture-loving weeds.

Turf Sponginess

Differences in the softness of the turfs could be detected simply by walking on them. Scientists at Swift Current found a way to measure this sponginess. Floyd Bigsby made a sponginess measuring device. The softness or sponginess of the grasses

(Please turn to page 46)

Survival differences of grasses when not watered for 5 years. On the left is Kentucky bluegrass, 100 per cent dead. On right Russian wild ryegrass which is seen to be 100 per cent alive

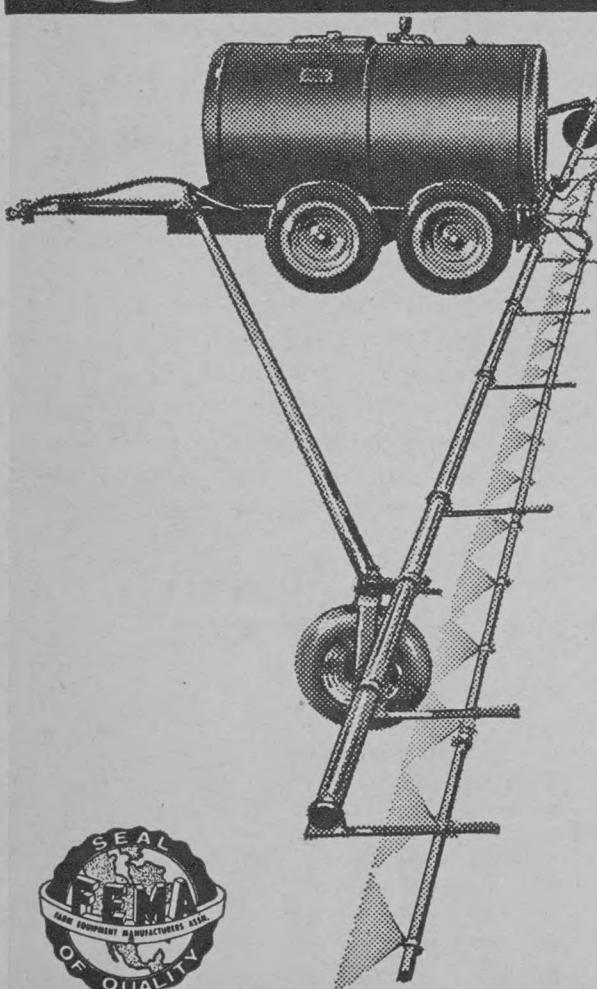


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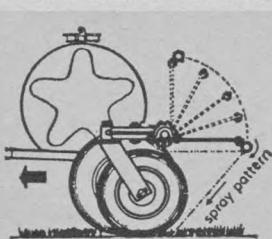
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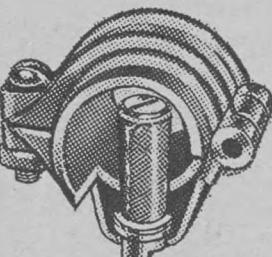
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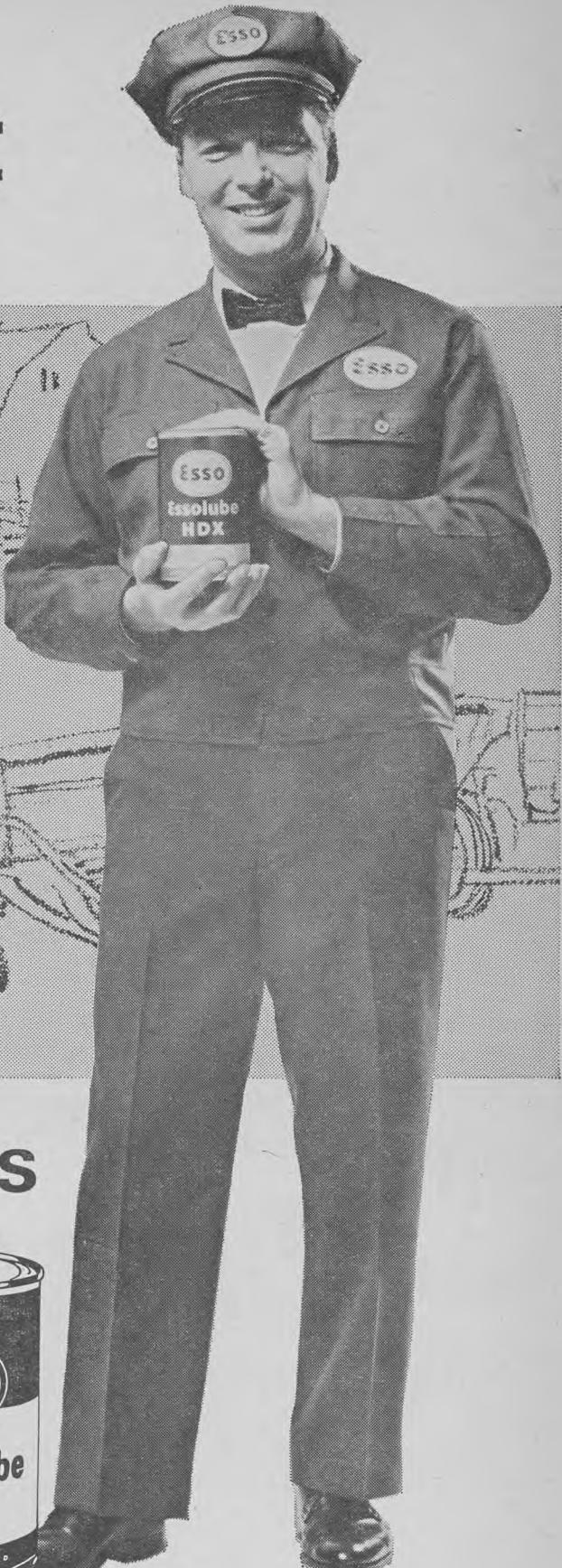
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MORE NOW...MORE IN THE FUTURE...FROM IMPERIAL OIL

(Continued from page 44)

was traced onto a chart which showed how spongy the particular grasses were. A spongy carpet can be achieved only with the lawn type of grasses and only when water is available for sprinkling.

How Did They Clip?

Some differences were noted. Within the dry lawn group, Russian wild ryegrass was the easiest to cut. Crested wheatgrass was next, then sheep's fescue and by far the toughest was streambank wheatgrass. At

the same time the streambank wheatgrass required only two or three clippings during the growing season while the others required about twice as many.

In the watered group, Merion bluegrass was the easiest to mow, and it also grew the least and required fewer mowings. Next came Kentucky bluegrass and then creeping red fescue.

Color Appeal

The dryland group all have their ups and downs because of midsum-

mer browning. However, sheep's fescue is the best-colored dryland grass. It holds a blue-green color and even retains this color fairly well when hot weather terminates growth. Next in line is Russian wild ryegrass which will hold color into a heat period much better than crested wheat or streambank wheatgrass.

Within the watered lawn group all the recommended grasses provide good green color continuously because of watering.

What Chance Have Weeds?

In the dryland group, Russian wild ryegrass and crested wheatgrass were such fierce competitors for soil moisture that not a single weed had a chance to establish or survive. The odd weed in the streambank wheat or sheep's fescue was not important either.

In the watered group, Merion bluegrass remained free of weeds for its thick spongy nature didn't

give weeds a chance to establish. Kentucky bluegrass or creeping red fescue had their usual complement of dandelions which of course can be controlled with 2,4-D.

Source of Seed

Kentucky bluegrass, Merion bluegrass, creeping red fescue, Russian wild ryegrass and crested wheatgrass are as common as peas and can be obtained from nearly any seed house, seed store, farmer grower or corner store. On the other hand streambank wheatgrass and sheep's fescue (these two are sometimes sold as Soda wheatgrass and hard fescue) are not commonly available and some searching around is necessary. Streambank wheatgrass was exported to the U.S. last fall by two Saskatchewan growers, Doug Barton, of Beechy, and D. N. Jamieson of Aylsham. These growers expect to have seed available for sale this fall.—Mark Kilcher, Swift Current Experimental Farm. v

Rhubarb Growers Keep Up To Date

WINTER RHUBARB growers in Ontario may not be as numerous, nor produce as much rhubarb as growers in other areas, but they have a keen eye for ways and means of doing the job better.

A few years ago they played a key role in organizing the International Fresh Winter Rhubarb Convention, and they played host to the first meeting which was held in conjunction with the 100th anniversary convention of the Ontario Fruit and Vegetable Growers Association in Toronto in January 1959. This year the group came back to Toronto and held a very successful 2-day meeting in late January.

In the intervening years the meetings have been held in the other main producing areas of this continent, (the states of Michigan and Washington), and Ontario growers have regularly attended these meetings. This year research scientists and growers from both states attended the Toronto meetings.

The feature speaker this year was Arthur Loughton, a research scientist specializing in rhubarb and cole crop vegetables with the British Ministry of Agriculture. Mr. Loughton works at the Stockbridge station in Yorkshire, in the heart of the English rhubarb growing area. He was accompanied here by two Yorkshire rhubarb growers. While here, Mr. Loughton spent some time comparing notes with scientists at the Horticultural Experiment Station at Vineland, at O.A.C. and other locations. He also examined vegetable storage facilities at Bradford.

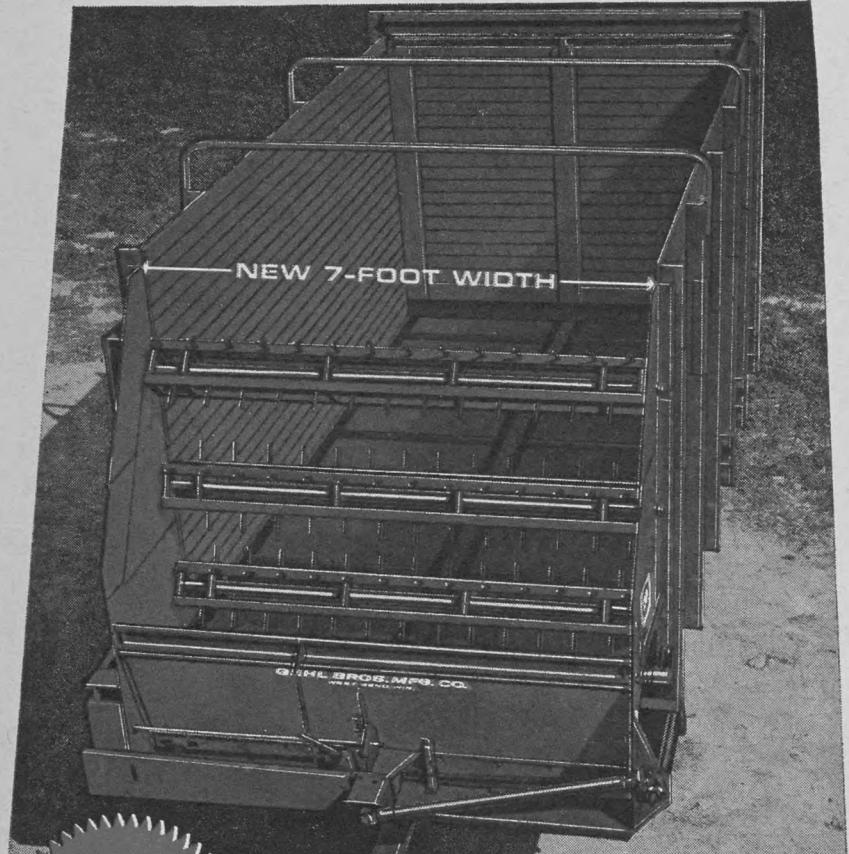
One of the big problems facing winter rhubarb growers is learning how to break the dormant period. Researchers have been studying this problem. In the United States some work has been done using chemicals to successfully stimulate growth. Both Dr. John Wiebe at Vineland and Mr. Loughton in England have been studying how much cold is needed to do the trick. They agree that it is possible to measure the

amount, and that frost is not necessarily needed. Some varieties need twice as much cold as others before they will grow well enough to produce a profitable crop.

A convention highlight was a trip to the Ontario Food Terminal. All Ontario-produced winter rhubarb is sold through a single commission house on this market. It wasn't always so. Until a few years ago every grower sold his crop wherever he liked and the results were disastrous. Producers were bidding against each other to get sales by offering lower and ever lower prices with the shrewd buyers successfully playing one against the other.

As one grower explained, "It seemed like a case of hanging together or hanging separately," and they finally agreed to hang together. With all of the production going through one sales organization, all buyers purchase at the same price. This varies with production and demand. The growers' organization encourages members to do an attractive job of grading and packing. Grades, of course, are administered by the Farm Products Inspection Service of the Ontario Department of Agriculture.

Growers from other regions attending the convention did not have this central selling setup at home, but some of them had some other marketing suggestions to toss into the discussions. For example, in Washington, production is much higher than in Ontario, and a great deal of the crop must be sold outside the state. An advertising deduction is made from all sales by the growers' organization to pay for advertising in distant areas such as California and mid-west cities like Chicago. They use color TV, radio and newspapers in their advertising campaign. With their larger volume of production, they have a freezing operation which can handle gluts or take low grade product off the market. — S. J. Clark.



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The Egg . . . and If

GEORGE McCAGUE, chairman of the Farm Products Marketing Board had news which brought forth some spontaneous approval from delegates to the Ontario Poultry Producers Annual Meeting. "Subject to certain conditions," said McCague, "we are prepared to recommend to the Minister of Agriculture that a marketing board for eggs be established for a 2-year trial period—without a vote."

The proponents of a plan-without-a-vote are a large segment of the association solidly backed by the OFA. But, as was pointed out in our December issue, the Provincial Government is not going to be maneuvered into the position of pulling producers' chestnuts out of the fire.

Eleven public meetings were held across the province to determine the wishes of producers. "Half the briefs presented," said McCague, "were repetitive and attendance was disappointing. One per cent of the producers is a small basis for the expression of opinion of an industry. While there was general support at all meetings for some type of marketing plan, individual ideas varied. Some thought the modified plan did not go far enough; others felt it went as far as was feasible. Some wanted a plan without a vote while others requested a plebiscite. All organizations should endeavor to resolve their differences; some compromise will be necessary."

In its brief, presented at the last of the series of hearings, the OFA stated that, "In the past, when marketing plans were introduced, bitter campaigns were conducted, emotions ran high and many of the issues were clouded by innuendo, misinformation and misrepresentation. We suggest that in this type of campaign more heat than light can be brought to bear upon a subject, and very often personal vested interests can obscure the long-term, more important benefits to all. When a plan is introduced for a trial period, the onus is, in fact, placed upon the Marketing Board to prove its worth to producers. The producers, at the conclusion of the trial period, then have something definite upon which to base their decision."

In contrast to this, Mel Tebbutt, president of the Ontario Farmers Union, told the Annual Meeting of the Poultry Producers that the OFU supports the principle of marketing boards but any plan must be endorsed by producers. "Have you," he asked, "done enough to educate the people on the concession roads?"

Financing has been a thorny problem and a levy on eggs has been rejected as unworkable owing to the multiplicity of outlets; instead, a levy on fowl, probably 2 cents a bird, would be collected. This would raise about \$100,000.

Earlier Tom Robson (who was incidentally deposed as president in an upset election) had forecast that half the monies collected would be used for administration and only some \$25,000 would get through to the Poultry Products Institute for promotional work.

"The Farm Products Marketing Board," said Mr. McCague, "regards it as inadvisable to set up personnel on limited finances; the Poultry Department at OAC, in conjunction with the Agricultural Economics branch and the Research Institute, should be utilized for research. Only a minimum should be used for administration; this would allow the use of monies for research and getting the industry's marketing requirements across to producers at the local level. The marketing plans that are working best have strong groups at the county level."

If producer differences can be resolved a modified plan would include:

- Promotion and advertising of eggs.
- Market research.
- Establishment of an egg industry advisory committee.

It would not include the pricing or purchase of eggs; it would, however, provide for the study and negotiation of terms, charges and costs related to producing and marketing eggs.

Spencer Rodway of the Poultry Products Institute injected a note of urgency into the meeting when he pointed out the inability of the Institute to pay for even the limited egg promotion already underway.—P.L.

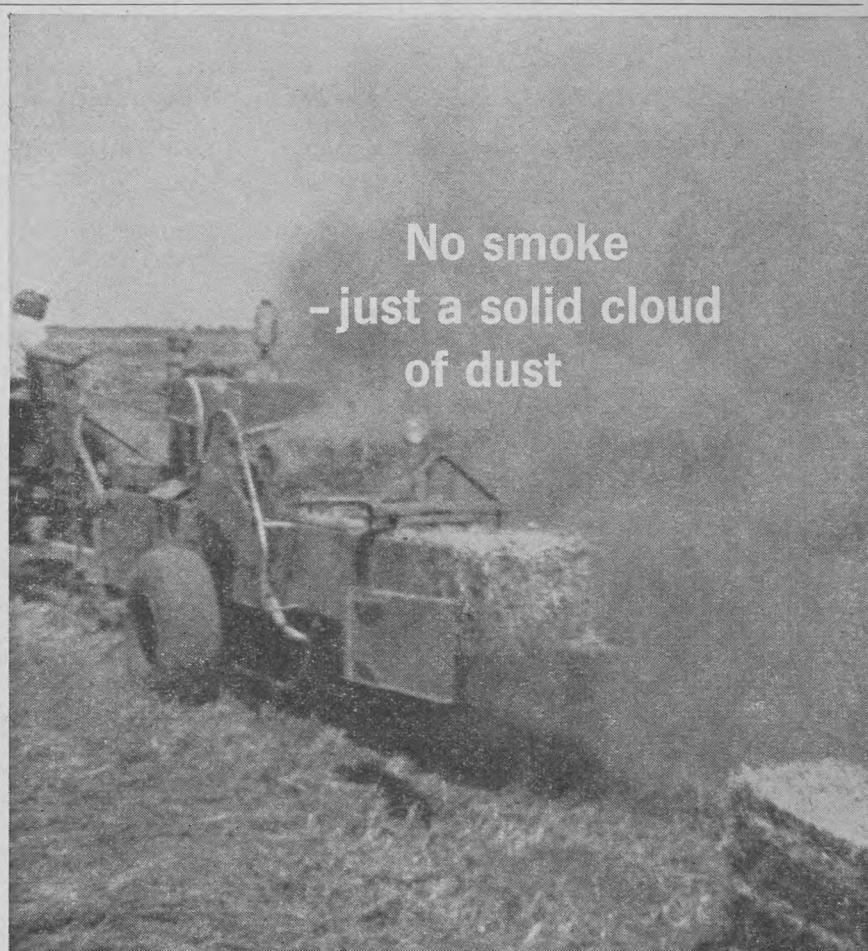
phase of the program with a grant to help pay for the booklets.

Officials of the Food Council have also made contact with procurement officers with a view to having more onions used in the kitchens of the armed forces and the various institutions, both provincial and federal, which serve large numbers of meals.

The onion surplus this winter can be traced to a combination of factors. During the two previous seasons there was a good market in Great

Britain for Canadian onions at generally profitable prices. As a result, production zoomed upward.

Britain imports vast quantities of onions throughout the winter, and buyers there have found Canadian onions to be of top quality. This year prices were not as high in the pre-Christmas period as Canadian growers would like, and remembering the high prices at the end of the season a year ago, many growers refused to sell part of their crop.—S. J. Clark.



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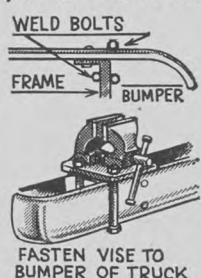
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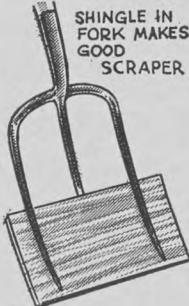
Portable Vise

If you ever have to drill a hole or weld something there is nothing that can replace a vise for holding it. If you have to make any repairs in the field you can have this most important piece of workshop equipment there too.



I welded three bolts, heads down, to the front bumper of my truck. They correspond to the three holes in the base of a 3-inch swivel base vise. One bolt is in front of the bumper and there is one on each side of the frame extension behind the bumper. By removing three nuts that hold the vise to the workshop bench it can be remounted on the truck bumper and taken to where the work has to be done. The bumper makes a good sturdy base too.—A.L.S., Ont. V

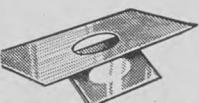
Handy Scraper



Slide a wooden shingle in between the tines of a hay fork and you will find it makes a good scraper for cleaning grain bins or chaff from the barn floor.—A.N.F., N.B. V

Candling Eggs

For automatic egg candler place mirror on opposite side of automatic egg candler. This way you can watch cracks on eggs on both sides.—J.J.M., Alta. V

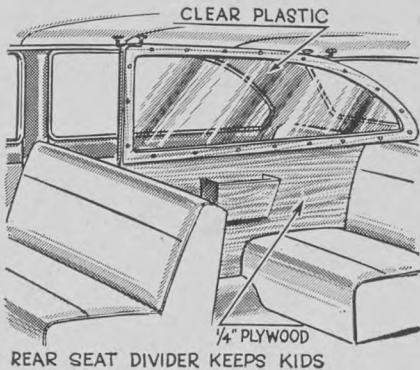


USE MIRROR WITH CANDLER TO DETECT CRACKED EGGS

Car Seat Divider

Having been on several fairly long trips with our boy and girl aged 11 and 9 years respectively we knew that boredom could lead to con-

tinual squabbling in the back seat. I devised this simple divider from $\frac{1}{4}$ " plywood and clear plastic. With the opportunity for squabbling re-



moved they each enjoyed the trip and were much less tired at the end of a long day's drive.—A.W., Alta. V

Saves Hands

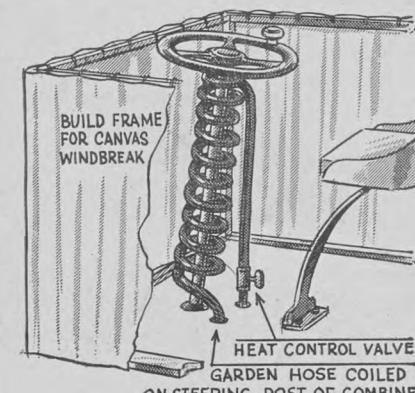
If friction tape is wound around a file near the tang, it will serve as a safety guard to protect the hands from an accidental slip when sharpening an axe or other edged tool.—C.M., P.E.I. V

Grain View

I mounted a rearview mirror to our seed drill to see how much grain there is left in the box without stopping the tractor at seeding time. I fastened a catch on the lid of the box along with a spring so that I can pull on the rope to open the box and the spring pulls it shut again.—N.F., Alta. V

Combine Heater

In late harvest when the sun goes down and grain is dead ripe you may be reluctant to make many more rounds of the field as the feet and legs often get so cold. Here is



a homemade arrangement which I have used to good advantage. Build a frame for a canvas windbreak around the operator's platform. Then take a length of garden hose and attach it to the water system of the

engine. Take the other end of the hose up through the platform and coil it around the steering column and back down to the engine. With a 160 degree thermostat, and a shut-off valve on the hose you can control the amount of heat coming up around your legs and feet.—D.M., Alta. V

Removes Nuts

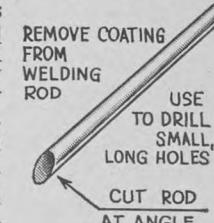
To remove a nut from a bolt with a covered or inaccessible head which cannot be held with a wrench, simply saw or file a notch in the threaded end of the bolt. Hold the bolt still with a screwdriver inserted in the notch while you unscrew the nut with a wrench.—A.P., Sask. V

Gutter Cleaner

If you are tired of moving that extension ladder every time you want to clean out your eave troughs try this idea we found useful. We drilled a hole in the end of a long pole and wired on three pieces of old tire chain and a weighted tin can. Run the pole against the edge of the gutter, trailing the chains and the can inside. You will find it cleans out the twigs and leaves very effectively.—A.N.F., N.B. V

Deep Drill

This idea has proved useful to us when on occasion we had to drill a long small hole through a piece of wood. The tool is a welding rod which is almost standard equipment on the farm. To use, first drill a pilot hole of required size with an ordinary bit to guide the rod, then having tapped the coating off the welding rod, and sharpened one end at an angle, chuck in electric drill and the hole is drilled speedily and with surprising accuracy.—W.E.L., Sask. V



Wood Shaper

A discarded office pencil sharpener will provide two good shapers to use with a portable electric drill, remove the cutter and fit with a $2\frac{1}{2}$ " stove bolt and a leather washer cut from scrap to prevent the nut from backing off. Chuck the bolt in the drill and it will cut fast and leave a smooth surface.—J.J.R.M., Alta. V



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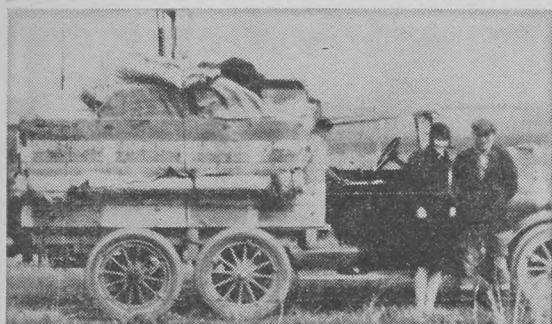
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M64-P6

Keep That Spray Boom Steady



Ned Palmer and his wife somewhere near Calgary in 1930 with their dual-wheel truck

NED PALMER of Golden Arrow has some pretty strong sprayer patents which imitators can't infringe on. When he came out with a tandem wheel model a competitor

grumbled, "I hope you're not going to claim a patent on that."

As a matter of fact, Ned can claim to be at least one of the first in Canada to develop a tandem wheel

undercarriage for better load distribution. The photo at left, taken near Calgary in the spring of 1930, shows a dual-wheel truck that Ned built from two old 4-90 Chevrolet chassis. Ned and his wife were headed south with all their household goods aboard to farm a piece of land between Granum and Fort Macleod. When he found the load was too heavy for their single-axle light truck, Ned bought the two chassis for \$35 and combined them so the weight would be distributed more evenly. This picture is now in the archives of the Canadian Trucking Association, Toronto.

"That turned out to be one of the most useful rigs I ever had," said Ned. "We used it around the farm

be stabilized properly when the coverage exceeds 25 to 30 feet. They continue to use this type of equipment because the broad scope of many common herbicides will give a partial benefit even with an inferior application. But the fact remains these farmers aren't receiving full benefit of the chemicals—they aren't getting their full money's worth. They might even be harming their crops!

This fact of spray distribution isn't adequately covered in the instructions given with most weedicides. Most labels concentrate on dosage recommendations, and generally fail to bring out the fact that it's the distribution of these recommended dosages which are responsible for the various degrees of results obtained.

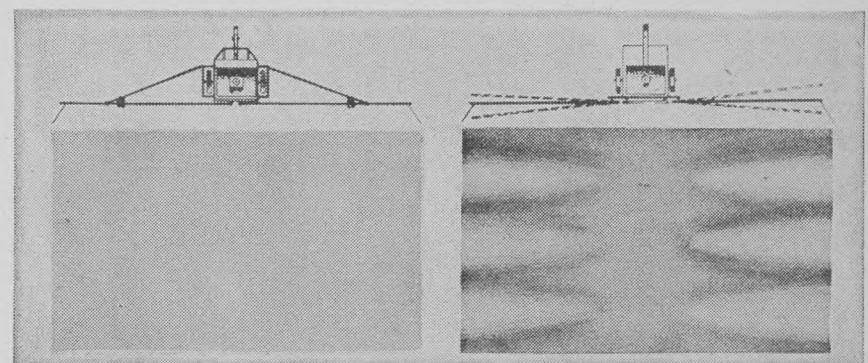


Illustration shows how an unstable boom changes recommended field dosages

a long time for hauling coal and grain."

Here are a few points to consider about tandem axles on sprayers:

1. What can a tandem axle do for a spraying outfit? It can give more even load distribution, and cut down on soil compaction. The trailer rolls more easily on soft ground. There is a rocker effect to this type of trailer, too, which gives the equipment a smoother ride. This adds up to an even, closely-knit spray pattern.

2. Why is it important to maintain an even pattern? Because an uneven or distorted spray pattern will result in a change of the recommended dosage!

3. What feature of sprayer design contributes most to an even spray pattern? The answer is *boom stability*. Many farmers use wide-coverage suspended-type sprayers. These can't

In turn, technical pamphlets and articles give careful instructions on how to calibrate a sprayer so the nozzle will spray the required volume per acre, but often fail to emphasize how important it is for that volume to be sprayed *evenly*.

4. How does an unstable boom affect spray distribution? It promotes a swinging motion in the boom, and this back-and-forth movement causes irregular spray patterns. In other words, some parts of each acre are receiving much more spray than they should and other parts are receiving less.

Try to imagine what kind of a painting job you would do if you sprayed paint unevenly like this, or what kind of seed distribution you'd get if your seed drill was allowed to swing back and forth.—C.V.F. v

KIL-MOR RAISE ONLY PROFITS

Use KIL-MOR for 'Hard-to-Kill' weeds in wheat and oats. Returns over \$10 more per acre than the cost of KIL-MOR

KIL-MOR (H430) is a potent new broad spectrum weed-killer. Sprayed on cereal grains it controls many 'Hard-to-Kill' weeds unchecked by 2,4-D. Increased yields of wheat and oats are characteristic of this outstanding herbicide. Alberta test farms registered an average rise of 7 bushels per acre—over \$10 more per acre than the cost of KIL-MOR.

CLEAN UP INFESTED FIELDS KIL-MOR destroys the following weeds:

- Wild Buckwheat • Tartary Buckwheat • Green Smartweed
- Lady's Thumb Smartweed • Cow Cockle • Hedge Bindweed
- Corn Spurry • Russian Thistle • Canada Thistle (top control)
- Yellow Mustard—and many more!

Weeds rob soil of moisture and vital nourishment—crowd out cash crops. Eliminating them ensures stronger growth, heavier harvests, with greatly reduced dockage losses from weed seeds. KIL-MOR (H430) destroys these crop-thieves—promotes increased yields and a cleaner, higher grade crop.

Ask your local Farm Supply Salesman or local Green Cross Dealer about specific KIL-MOR applications for your problem.

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5 gallon pails.
contains Banvel (D)[†]



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How to Treat Fence Posts

THE DECISION to treat fence posts depends on many factors—the amount of fence involved, the cost in terms of farm-produced posts versus purchasing commercial posts and the type of wood selected.

Poplar, spruce and willow decay quickly, but when treated, they will last up to 15 years or longer.

Increase in life, due to treatment, varies with type of treatment and the type of wood.

How to Prepare Posts

Posts are prepared for treatment by being peeled and thoroughly air seasoned. Only sound, solid wood posts should be treated.

Spring and early summer is the ideal time to peel. Inner bark of "softwoods" must be removed to allow proper penetration of the preservative. All trimming and pointing of posts should be done before treatment so that the entire post is subject to treatment.

How to Treat

Creosote is quite durable, but also expensive. Posts can be purchased factory pressure treated or may be treated by an open tank method on the farm. About $\frac{1}{2}$ gallon of creosote is needed per post measuring 5 to 6 inches in diameter and 7 feet long.

The open tank process is the best

method for the farm. A steel drum with a fire built underneath makes a cheap and serviceable hot tank which can handle small lots of posts. A similar tank can be utilized for the cold bath. Posts should remain in the hot oil for periods of 30 minutes to 1 hour. It is not necessary to treat the above ground portion of the post. Penetration of $\frac{1}{2}$ inch is desirable.

The Bluestone Method is an inexpensive method. A disadvantage is that it can be leached out of the post by rain and melting snow. It must be used in wooden containers and is poisonous to animals. "Green" poplar and willow posts can be satisfactorily treated with bluestone solutions. Posts are then waterproofed by soaking overnight in used crankcase oil.

Chromated zinc chloride is inexpensive and relatively easy to use on the farm. It is preferable to zinc chloride because it is not subject to leaching. It is used in solution with

an equivalent concentration of $1\frac{1}{4}$ lb. of dry salt per gallon of water.

Phentachlorophenol (Penta) may be used on the farm or treated posts may be obtained commercially. It is not subject to leaching by rain and snow. "Penta" can be purchased in concentrated form which is then diluted with kerosene, fuel oil or used crankcase oil to a 3 to 5 per cent solution. Caution must be taken in its use — it is irritating to skin and lungs. Follow directions carefully.

Naphthenates are also available in concentrated form and can be mixed with kerosene, fuel oil or used crankcase oil to give a 2 per cent solution.

Farmers should be familiar with the ingredients and proportions of preservation before buying.

Rubber gloves should be worn when treating and fire precautions taken.

Charring or used crankcase oil are of little or no benefit in fence post treatment.

concrete walls and two 8-inch concrete walls, at 61-inch centers, to give added support for heavily laden trucks or wagons.

If the laneway is likely to be used by extra wide equipment a conven-

tional swinging gate can be added at one side of the cattle guard.

Construction plans for a cattle guard can be obtained from the Canadian Farm Building Plan Service, or your local ag. rep.—P.L. ✓



Versatile Cattle Guards



Lewis Runnalls drives across one of his livestock guards made of cedar poles

LIVESTOCK guards, or Texas gates as they are sometimes called, are gaining in popularity. Where a lane is used frequently by wheeled traffic, opening and shutting conventional

gates can be a tedious chore. While the problem is eliminated with a livestock guard, success in restraining stock is not as great as with conventional gates. Heifers are more likely to try and cross the guard than cows, but the latter will, on occasion, do so, especially if frightened or crowded.

Lewis Runnalls has several effective, but cheaply constructed, cattle guards for his sprawling Barrie Island farm; as the guards have little traffic, Runnalls has been able to use cedar poles. For lanes where traffic is either heavier or more frequent, a more ambitious structure is desirable. In Oxford County, Clare Hartley has three permanent cattle guards.

In constructing a guard use pieces of 4-inch-diameter boiler pipe spaced 2 inches apart; 2-inch angle irons are welded across each end and a lighter gauge spacer strap is welded across the center. The metal parts of the cattle guard can be removed for cleaning out the 12-inch pit; the pit should, of course, have good drainage. The pit has 5-inch



Don't skimp. This Texas gate is made of small diameter pipe and lacks concrete supports. Running repairs can't transform it into a good barricade

Who would have thought it would last 30 years?

The CCC wood protection experts who treated this fence post 30 years ago, that's who!

Then, as now, farmers wanted posts that would last and save money year after year. And CCC Pressure Treated Posts are made even better today!

CCC protection isn't just "skin deep". It means *deep penetration*. Even carving your initials on it won't make a chink in the armour.

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Write today for our New FREE BOOK that gives facts that may save you painful, expensive surgery. Tells HOW and Explains WHY NON-SURGICAL Methods of Treating Rupture are so successful today. Act Now. There is no obligation.

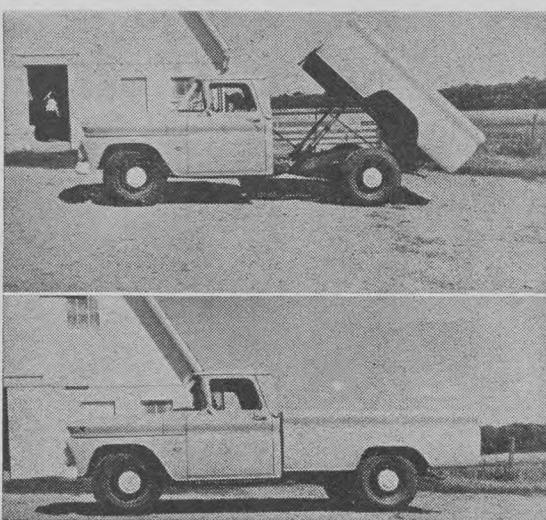
EXCELSIOR MEDICAL CLINIC
Dept. H-8733, Excelsior Springs, Mo.

What's New

Windrowing Spout



This new windrowing spout puts from 2 to 6 rows of shredded stalks into one windrow and is made for attachment to M-C Choppers. It permits air drying of the stalks prior to baling. (Mathews Co.) (457) ✓



Pickup Hoist

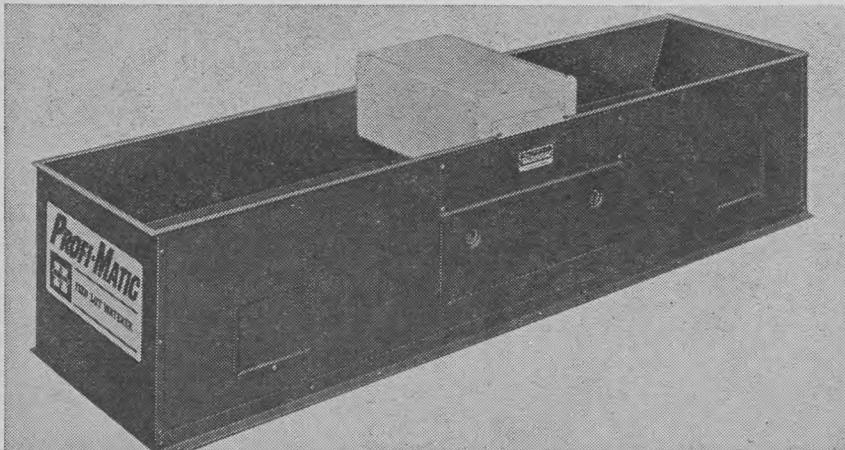
Standard pick-ups can now be converted to dumps with this hydraulic hoist. The unit can be installed by either bolting or welding lifting brackets to the body. Dashboard-mounted controls operate electric-hydraulic pump to raise and lower truck body. The cylinders and pump carry a 6-month guarantee. The appearance of truck isn't altered. (Young Spring and Wire Corp.) (458) ✓



Forage Pickup

Heavy and irregular windrows are easily lifted by the new 65" pickup attachment, which is now available for use with either of the New Holland 818 Forage Harvester or the Crop Cruiser. Two heavy duty sicklebars, are also new on the market. (New Holland Machine Company) (459) ✓

Waterer for 300 Head



This new water trough is 86½" long by 22¼" wide by 8" deep, and is large enough to handle up to 300 head of cattle. Heating kit is optional. (H. D. Hudson Manufacturing Company) (460) ✓

For further information about any item mentioned in "What's New," write to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

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MEET the FAMILY

by
MAY AUSTIN

Illustrated
by
MANLY GELLER

FLIGHT 901 WAS READY for departure. As Nora Prior watched her daughter caught in a throng of boarding passengers, Lennie turned, her face startlingly lovely among the sombre-clad males. Several swung with Lennie, their eyes following hers, their glance resting briefly on Nora and Bob. It was not unusual. Lennie had a head-turning quality about her. There never had been any lack of eligible young men in her life.

But Lennie had chosen Roy Samson, six years her senior. Roy was not a college man, not even one of Lennie's own group. He was the owner of a delivery service in a small town in Ontario. When they had met at a summer resort, Nora thought it nothing more than a holiday romance. She hadn't expected it to last. But it had.

"Coming?" Lennie called.

Nora nodded, stretching for her husband's kiss. As usual Bob was discerning. "Lennie's almost 21," he said. "I trust her good judgment. Don't you?"

"I don't know!" She had not intended such a heated reply. "Height and charm," she continued more calmly, "are not enough for Lennie. I want depth for our daughter. After what she told me about Roy's former marriage . . ."

Avoiding his eyes, she concluded, "The least he could've done was take us into his confidence."

"Roy told Lennie before they were engaged," Bob reminded her, "and Lennie told us. That's enough for me. Besides, it was only a teenage mistake—the marriage annulled almost before it began."

Through her sleeve the warmth of his hand was steady. "I love her, Bob, I don't want her hurt."

"I know," he replied. "Neither do I. But honey, you're rushing into this with an all-heart attitude. Use your head a little. Last fall when Lennie went east to meet Roy's family, she made her own decision. She's almost 21," he repeated.

The intercom hummed. "Flight 901 for Toronto is now boarding." She left him hurriedly, through the now empty gate, across the wide windswept apron to the waiting plane.

"Here you are!" Lennie exclaimed. "What on earth kept you?"

"Just saying goodbye to your Dad."

Lennie laughed. "After 25 years? You still can't tear yourself away? I hope my marriage lasts as well."

Nora smiled. Good marriages, she wanted to say, are built, my darling. They don't just last.

The airline served a delicious lunch. Nora had not eaten breakfast, had not realized her own tenseness. Not until Lennie, riffling through page after page of a bride magazine, persisted in getting her opinion of a bridal gown. Like an impatient child!

"Do we have to decide now?" she asked with annoyance. "This is April. The wedding's not until August."

Lennie's eyes widened. Smoke-gray and dark-fringed, they held the same expression as her father's back there in the airport. And something more—a pleading, a yearning for approval. She leaned closer, her forehead furrowed.

"Mom? What is it?"

Nora reached for her handbag. "Nothing," she said, "I don't like being rushed. That's all."

(Please turn overleaf)

(Continued from previous page)

Undeceived, Lennie's face grew still. "I shouldn't have told you about Roy's other marriage. I might have known you'd be prejudiced. Roy wanted to tell you himself. But I insisted it should be me. *My* mother would understand."

Nora looked at her helplessly. How did you explain that mothers *did* understand. About marriages — far more than one could ever put into words. That every marriage was different; an entity unto itself. Like a fingerprint, it radiated in ever widening circles; intricate and eternally one's own. But, there had to be a starting point, a solid, indisputable center. And, broadmindedness, she wanted to say, comes easily. Except when it concerns one's only daughter.

The pilot's voice filled the cabin, relieving her of an immediate answer. Flying weather, he said, was excellent. All the way to Toronto.

Making a deliberate show of drowsiness, she leaned back closing

her eyes. "I'm sleepy," she murmured. "Let's not jump to conclusions, hm-m?" She did not voice the thought that there was still Roy's family to be met. His background could mean a great deal.

TORONTO WAS warmer than Calgary, windless with the sun struggling to break through a slight mist. Ahead of Nora, Lennie's white coat became a rich cream, the yellow scarf at her neck a warm flame. People waiting behind glass in the neon-lit lounge looked framed in third dimension, two smooth dark heads topping the crowd with ease. Roy must have brought his brother. In a family of nine, it was a rare occurrence, Nora had been told, for a Samson to do anything alone.

Lennie began to run. Neglected, Nora watched them cling together, her heart quickening at the tenderness on Roy's face. Turning away, she held out her hand.

"You will be Roy's brother," she said. "There's no mistaking the like-

ness." Leaner than Roy, though — and, much younger. But, the same fresh coloring.

Roy was at her side, kissing her soundly on the mouth, one arm holding her close, the other about Lennie. "Forgive me," he said. "Waiting for this girl to graduate has been an eternity. This is Geoff, the baby of the family."

This, then, must be the wild one. Lennie had filled her in on some of the family problems. Geoff, it appeared, was one of them. "I don't know where Roy gets the patience," Lennie had said. "He's forever pulling Geoff out of one scrape or another."

In the parking lot, the Lincoln was a surprise. An old model to be sure, but polished for the occasion within an inch of its dignified life. Nora had been given the impression that the Samsons were in straitened circumstances. "Not straitened, really," Lennie had explained, "just muddled."

Nora sat with Geoff who would be driving the sixty miles to Edge-mere. The silence in the back seat was suggestive of a long embrace. She could hardly blame them — Lennie and Roy had been apart since last Christmas. But Geoff was a stranger and she wasn't quite sure how to talk to him. She knew, of course, his fondness for cars. Most of his escapades, she recalled suddenly, concerned cars!

With only twenty more miles to go, the atmosphere unbent. Geoff, with a little probing, told her he worked in a garage. Someday, he hoped to have one of his own—and he was going steady with a girl named Fluff.

Roy and Lennie, finally overcoming the excitement of their reunion, told her what was scheduled for the week end. Friday evening there would be a shower for Lennie. Because Roy's sister Aline would not be able to make the wedding in August. Saturday, everyone was attending a dance.

The car nosed lazily into the town's older residential district. Here, most of the houses had the gracious, old-world charm of red brick, terraced roofs and outside verandas. Any one of them might accommodate a family the size of the Samsons. After her visit last fall, Lennie had been deliberately vague. "The Samsons are a huge, happy family," she had said. "But, they don't live like us, Mom. I'd sooner you form your own opinion."

They were past now and onto the main street, Roy pointing out the new shopping center which had recently employed his delivery service. The street grew steadily shabbier as they came to its end, the car slowing at a railroad track when the warning signal flashed red for a passing streamliner. Above its screaming passage, Geoff yelled, "Here we are," and turned the wheel abruptly.

IN THE WAKE of the train Nora sat pocketed in a sudden vacuum of silence. This couldn't be the house. It couldn't be. In the first place, it seemed far too small. Its front door, flush with the street, looked unused; sealed and with the steps removed. The yard — it certainly wasn't a garden — resembled a used car lot. Roy's delivery trucks were parked haphazardly here and there along with a jalopy Geoff was proudly pointing out as his own. The Lincoln squeezed into the remaining space.

Opening the car door with a flourish, Roy announced, "This — is — home."

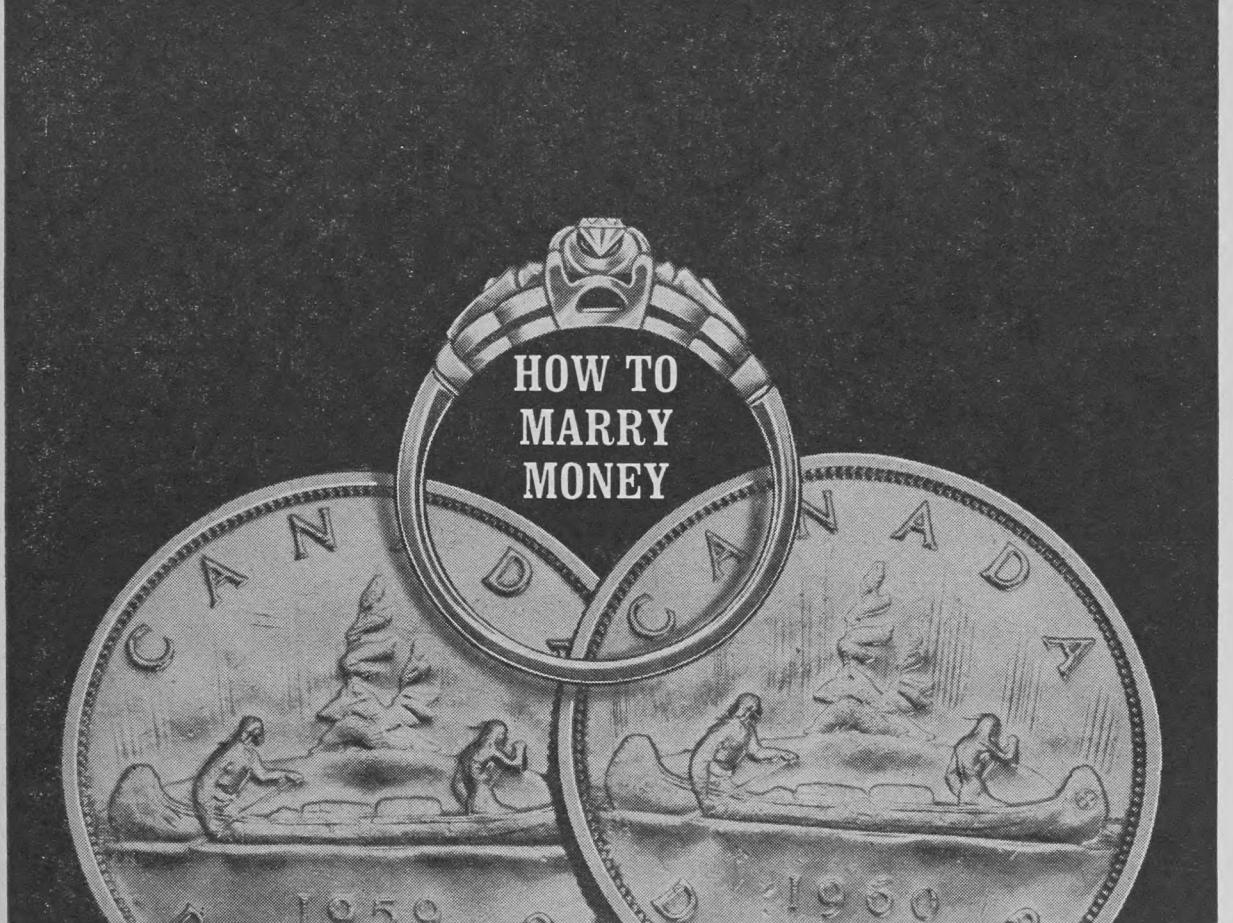
Houses, Nora always maintained, have personalities. This one thrummed like an ant heap. Even on the outside, its activity set up a sort of vibration. Perched on the side porch roof was a slender young man who seemed more concerned with a television antenna than with their arrival.

To a willowy girl in a faded duster who kept appearing and reappearing in the doorway, he was shouting, "How's that?"

"Better!" she screamed. "Turn it a bit more."

This, Roy explained, was Aline, his older sister; the man on the roof

(Please turn to page 57)



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COUNTRY GUIDE

Flatter Your Eyes

STATISTICS show there are more women who wear glasses than there are women who don't. If you are one of those who do wear glasses, you'll be interested in some suggestions designed to help you select glass frames with an eye to improving your appearance.

DO match the arch of the frames to the arch of your eyebrows. Your eyebrows should not be seen through the lenses but should be completely visible above the upper rims. Let the top line of the frames follow your eyebrow line.

DO remember that the "lift" of slightly upswept frames helps to minimize sagging lines. Your choice of frames can add 10 years to your appearance or take 10 years away.

DO choose frames with a bridge style suited to the length of your nose. For example, the keyhole bridge is shaped like its namesake. It leaves a larger area of the nose exposed and so gives the illusion of length. The saddle bridge, which is rounded and sits rather low on the nose, leaves a relatively small area of the nose exposed. It seems to shorten the length of the nose.

DO try small frames if you have small, piquant features. They make more of the eyes and surrounding area visible and so add emphasis to the eyes.

DO select frames in a shade to match your "best" color. In choosing your wardrobe you normally choose the colors that are most flattering to you. Follow the same rule in choosing your glass frames. Your best selection might be a tone of the color which you wear most often.

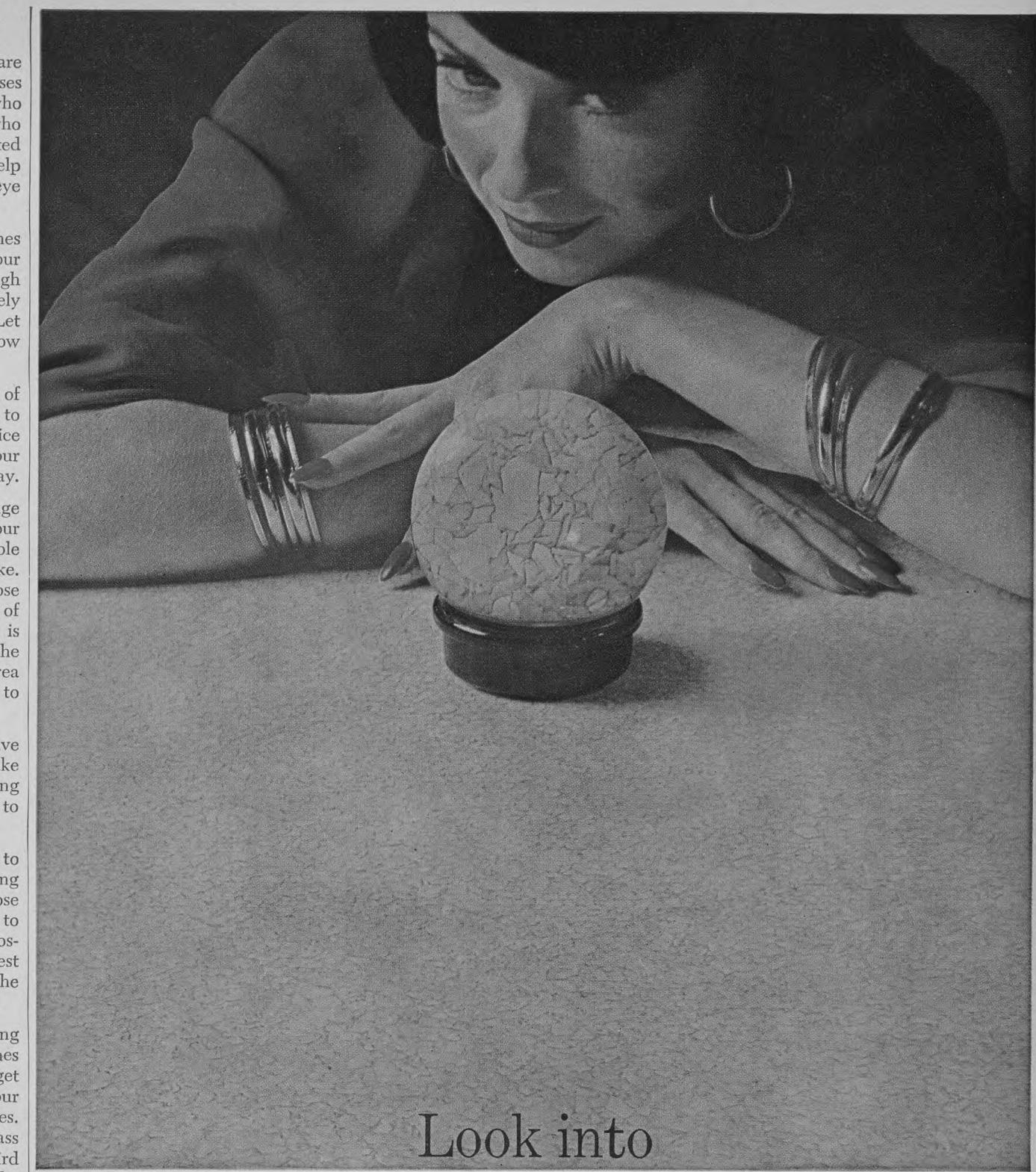
DON'T go overboard in choosing too novel a styling in glass frames for everyday wear. If the budget allows you a second pair, have your prescription made up in sunglasses. Dramatic styling is fine for sunglass frames. If you can afford a third pair, that's the time to explore the plaid, striped, brightly colored and strangely shaped novelty frames, all a-glitter with rhinestones and gilt.

DON'T choose small frames if you have a rather large face or heavy features—because they tend to make your face seem even larger. Flatter your face with frames which are in proportion to your features.

DON'T color-match frames to your eyes. Flatter your eyes by choosing complementary colors rather than matching ones.

DON'T select frames to match your complexion. This week's bright complexion may be replaced by a paler one next week. Sun and wind can also change your skin tone.

DON'T choose a frame shape to complement a hair style alone. Most women vary their hair style during the year; sometimes they change it drastically. If this happens then the frame style may no longer be complimentary.



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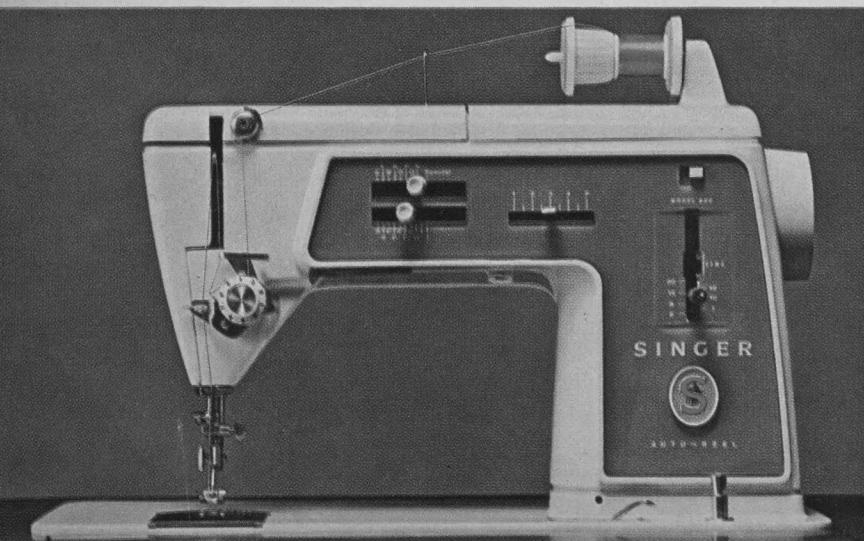
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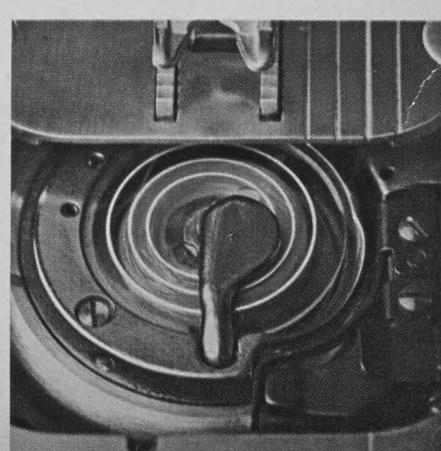
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THE ONLY-ONE-LIKE-IT BOBBIN



(Continued from page 54)

was her husband, Shawn. They were living here until Shawn could find a house. With all the grace of a Washington hostess, Aline held out her hand. "Welcome to Edgemere," she said. There were no apologies for either her apparel or the rollers in her hair. Only a brief nod in the direction of the roof.

"The children want to watch Huckleberry Hound. With three television sets in the house, this thing has to be adjusted."

"Oh," Nora said. Then, the unbidden thought. They'd lived here long enough to raise a family!

From the porch, they stepped directly into the kitchen. It was incredibly large. Doors led off in every direction like spokes in a wheel. The kitchen table was the hub. Guided there by a multitude of hands, Nora found herself seated and feeling slightly giddy. Acknowledging introductions, trying desperately to hang names on all the faces, it occurred to her that if she left the table, took one step away—she'd be snatched into a whirling stream of Samsons!

A small, silver-haired woman handed her a cup of tea. "You'll need it," she warned. Then she slid unobtrusively back to the stove.

"...Mother," Roy was saying.

Mrs. Samson? But, there was no chance for amenities. The family was closing in.

Upstairs there was an explosion of hammering and the sound of lumber being dragged. No one seemed to notice except Roy.

"We're building a 'rec' room," he shouted. "Only time anything's done round here is when we have an important visitor. Last time was Aunt Aggie from California. We built the porch then."

Gleefully, Geoff pointed to a door in the wall. Its frame, closer to the ceiling than the floor, necessitated a brief set of steps. "That bathroom was for Uncle Phil — from Vancouver."

With his words the door opened and an elderly man of dignified bearing descended the steps. Like a king! Nora thought. At his own coronation!

To Roy's father she extended her hand, realizing it was clammy, her voice a notch too high. Then, getting to her feet, "If you'll excuse me," she said, "I think I'd better freshen up."

She said it to her hostess. But Mrs. Samson didn't hear. Threading expertly through the crowd she carried a covered tray and as Nora watched, she tapped on a closed door. She handed the tray to the shadowy possessor of a pair of paper-white hands. Roy's father hastened to explain.

"That's Bert," he said.

NORA WAS ABOUT to say, "Oh." Then she realized that so far, this had been her sole contribution. Instead, she exclaimed, "So, you do have a skeleton in the closet!" and was instantly ashamed. But the Samsons greeted this sally with a deafening roar of delight. Unpredictable. The whole family was absolutely unpredictable. It was the only suitable adjective. Except maybe one other.

Upstairs, following Lennie around piled lumber and over kegs of nails, Nora found no reason to change her opinion. The "rec" room was immense. Even in its unfinished state it accommodated three sofas, a TV set and a record player.

But the bedroom was hardly bigger than an outsize closet. Nora sank onto the bed and wondered why they'd even bothered with the room. With recreation going on right next door, it was obvious that sleep was going to be secondary.

Unexpectedly, the shower that evening for Lennie was all that it should be. Held at the home of Aline's friend, a Betty Boxer, it was everything a mother imagined for her daughter. Her heart warmed for Aline upon discovering it was she who'd made all the arrangements. Each dainty sandwich, every pink paper bloom cascading in maypole prettiness about Lennie's chair. For the first time since her arrival, Nora felt less apprehensive about Lennie's future. She might have known the feeling wouldn't last.

A child began to whimper and their hostess hastily left the room. On the table beside Nora was a silver-framed photo. "What a lovely little girl," she said. The remark fell into one of those lulls which sometimes occur in a party-packed room. The silence lasted uncomfortably long. Aline offered an explanation.

"She's an incurable cripple."

"How sad!" Nora said, realizing the reply was insane.

"A lot sadder," a small blonde remarked, "if it weren't for Roy and Betty."

"Betty used to be a teacher and she's started a school for crippled children," Lennie explained. "It's the first one in Edgemere. Roy drives the youngsters to and from school in a delivery truck."

"What about the business?" Nora hadn't meant to say it aloud, hadn't meant to sound so heartless. To its mother, every child was precious. But, I'm a mother, too, she wanted to cry. And Lennie is precious to me.

Lennie's reply was cool. "Morning deliveries aren't heavy and afternoons if Roy can't make it, there's always a Samson to drive." Nora could have leaned over and touched her. But, Lennie was talking to someone on the opposite brink of a rapidly yawning chasm.

SATURDAY MORNING, Nora wakened to the smell of wood burning in the stove. A thin blue haze filled the room intermingled with the aroma of frying bacon. Downstairs, she found Mrs. Samson standing in the same spot in front of the range and at Nora's suggestion, she consented to share a cup of coffee. The brief respite was interrupted by Bert shuffling into the kitchen with his empty tray.

"Nice breakfast, Mom," he said and shuffled back.

"That's Bert," Mrs. Samson said. Nora's question was pointed. "Another Samson?"

"Oh no. Bert used to own this house. It's ours, now." She explained further. "I guess Roy told you that his father had a heart attack over twelve years ago. Well, with all the

children, I just didn't know where to turn. Fortunately, Bert offered us his house—in return for keeping it up and looking after him. It hasn't been easy, Mrs. Prior," she confided. "He's been a sick, old man for as long as I can remember."

Aline appeared in the same faded duster. "Would you watch the children, mother? I've some sewing to do."

Nora surprised herself. "I'll do it," she offered. In return, she received Aline's grateful thanks and was informed that the living room drapes were nearly finished.

"Aline's taken on quite a job," Mrs. Samson commented. "Floor length drapes with linings. I've needed them for a long, long time."

By lunchtime Nora concluded that everyone had a job. Everyone, that is, except Geoff. She had forgotten how exhausting two small children could be and wouldn't have noticed Geoff if she hadn't kept stumbling over him.

Saturday was Roy's busiest day and his appearances at the house were numerous for a quick coffee or a hurried snack when he checked on calls. His business phone was in the kitchen and more often than not, Nora found herself answering it. Once she took a frantic call for flowers not yet delivered to a wedding.

"I'll deliver them," Mr. Samson said.

"You can't. Shawn has the Lincoln."

He was unperturbed. "Then, I'll take Geoff's car." Nora had a sudden, rib-tickling picture of Mr. Samson rolling up to the church in Geoff's orange jalopy.

Unconcerned, Geoff sat through it all, playing his role of "family baby." All morning, he sat in the kitchen drinking coffee and reading the funnies; all afternoon in the "rec" room with his girl friend, Fluff. Nora had not yet decided whether Fluff was a deaf mute, or just incredibly shy. So far, she had not heard the girl utter one word.

SHE WAS NOT SURE when she first suspected that Geoff might be drinking. His laughter maybe; it was too frequent and too loud. Roy had made no secret about leaving two bottles of rye in the recreation room cupboard. "For cocktails," he'd announced, "before the dance tonight."

That evening at the dinner table, Fluff sat beside Geoff's empty chair picking at her food. Dessert was being served before someone asked, "Where's the boy friend?" Fluff burst into tears.

"He's not my boy friend!" she sobbed. "He's my husband!"

There was a short, stunned silence, every eye riveted on Fluff's face.

"We were going to tell you," she cried. "Then, Geoff broke into Roy's bottle. I - I think he's had too much. And he took the Lincoln!"

This explosion resulted in a Samson repercussion. They had done this before, Nora decided. This silent rallying of forces. No questions asked. At least, not now when action counted more. Mrs. Samson hurried to Fluff's side and led her out of the room. Aline went to the door,

reported it might rain, then disappeared. The boys headed by Roy, left the house together with Lennie struggling into a raincoat in the rear.

Above the noise of revving truck engines, Nora heard her scream, "I'll take the jalopy." And, Roy's shouted instructions. "Phone back every half hour—until we find him."

Five hours later, Geoff was found parked on the shoulder of the highway. He was sleeping like a baby. Nora had washed and dried the dishes, taken her turn at the phone and waited anxiously with Mr. and Mrs. Samson while rain drummed on the roof and the oak tree took vicious swipes at the house. Then she had stumbled up to bed.

LENNIE'S VOICE must have wakened her. It cut through her sleep with sharp-edged intensity. Light filtered through the partially open door and the clock's phosphorescent hands pointed to three a.m.

"No!" Lennie was saying. "I will not take Geoff and Fluff in with us. Geoff's had far too much done for him already."

Roy's answer was barely audible. "You've had everything, Lennie. A beautiful home, doting parents — everything. I thought you'd come through unscathed. I never thought I'd call you selfish."

"Selfish! I'd be the first to offer help — if you were doing the right thing. But, Roy, you're not. You're simply taking away Geoff's last shred of responsibility."

"He's only a kid," Roy said, wearily. "And, this is just a 'kid' marriage. I wouldn't wish anyone the same rotten experience I suffered. Let alone my young brother."

"He's exactly one month younger than me," Lennie retorted. "Old enough to vote and old enough to drive. He's an adult, Roy. That's the whole trouble. Nobody expects him to be."

Her voice rose. "This is Geoff's one big chance to show he's a man. What right have you or anyone else, to take it from him?"

Lennie was crying now. "Can't you see what you're doing? You're still trying to rectify your own mistake. Oh, darling! I love you for the wonderful person you are. But let Geoff right his own wrongs. The way you did."

Roy's reply was drowned in the house-shuddering rush of a fast freight. The bedroom door swung open, thudding against the wall. Sitting erect against the pillow, Nora was framed there in a square of lamplight. Roy's eyes met hers and Lennie raised her head from his shoulder.

"Mrs. Prior," he said with a smile, "you have a very opinionated daughter. I need her to set me straight."

Without any hesitation, Nora corrected him. "You're going to need one another," she said firmly. "Together you'll make quite a team. And now," she asked, plaintively, "I wonder if one of you would close the door? Because I need my sleep."

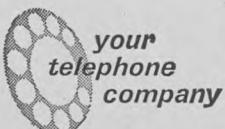
In the darkened room, she settled herself comfortably and made another correction. This house, she thought suddenly. It doesn't thrum. It throbs! Like a steady heartbeat! V



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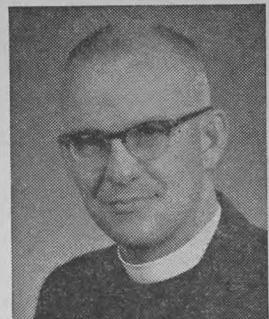
Copenhagen



"THE WORLD'S
BEST CHEW"

Let's Think It Over

by THE VERY REV. M. L. GOODMAN



!!!

We are not given a clear and connected account of the first Easter. This is one of the most convincing things about the Resurrection story. No one has worked over it to make it into a "document." Rather it reads like the initial newspaper reports of some tremendous event which no one yet fully understands, nor has had time to assess. Such reports are often sketchy, and may even conflict as to certain details. They feature the first "eyewitness" accounts and they dwell on odd bits of information. Yet there is never any doubt that SOMETHING HAS HAPPENED, though exactly what it is and what it means may remain to be seen.

The Resurrection narratives are like this. There is disagreement as to whether Mary Magdalene was by herself when she came to the tomb, as to whether it was Jesus who spoke to her or someone else. We are told of the strange fact that the grave clothes lay exactly in their place, undisturbed.

Though the scriptures were not written until at least thirty years after the event, no attempt has been made to "tidy up" the resurrection story. It is preserved as the astounding, shocking and life-changing fact that it was and is. For those thirty years Christians had been building their lives on its truth. It did not occur to them that there should be a thorough and meticulously documented record. The convincing proof of the risen Christ had come to them in daily life. There was no room for the slightest doubt in their minds, because the reality of the Resurrection had been verified over and over again in undeniable personal experience.

That is where it is verified today.

Suggested Scripture: Would you take time to read the Resurrection narratives in all four gospels—ideally at one sitting?

St. Matthew XXVIII : St. Mark XVI : St. Luke XXIV : St. John XX and XXI.

I've Got a Little List

Some years ago at a Padre's hour I wrote on the blackboard ten reasons folks give for not going to church, as follows—

1. I had to go when I was a child.
 2. It's the only day I have to sleep in.
 3. I worship God in the out of doors. (It's the only day I have to play golf.)
 4. The Church is always after money—I can't afford it. (or I disapprove.)
 5. I send the children!
 6. The church is full of hypocrites.
 7. I don't like the minister.
 8. I leave that sort of thing to my wife.
 9. I don't feel that I need to go to church, so long as I keep the golden rule.
 10. I don't get anything out of it.
- Oh!—there's one more—
11. I haven't got a hat!

When I had finished the list I stood back from the board without any comment and waited. In a few moments there was a chuckle here and there and finally the whole group began to laugh. Just looking at those reasons written down was enough to expose them for what they were.

However, after twenty years of listening, it would be refreshing to hear something new.

Suggested Scripture: Psalm 95 and Hebrews X, verses 19-25.

Forward Be Our Watchword

I just can't help thinking about Spring! It would be about this time in the year, or a little earlier, that I always got my feet wet, some forty Springs ago. Every mother knows that a rubber boot will hold water as well as keep it out! I see the children still build canals through the slushy snow and contrive boats for long and exciting voyages from the backyard into the street. How can you blame a boy if he becomes so interested in the problems of navigation that he kneels down and so ships water over the top of his boots?

One of the wonderful things about God is that He has shown us so much of what He is going to do next.

He has shown us Spring and Summer, Fall and Winter. At least in our earlier years we look forward to each one of these, anticipating its particular joys. So we are taught to look forward—expecting the beauty and adventure which *always* lies ahead.

God has shown us the Resurrection—what He is going to do next after our death. Our whole experience of life should teach us confidence and faith. Why have we not learned to anticipate joy? Have the boy's eyes grown so dim that he only sees a world of work and anxiety—a winter world where no one expects Spring?

Suggested Scripture: I Corinthians II, verses 9-end and Revelation XXI, verses 1-7.



[Guide photos]

Helen Anderson had new cupboards built in the kitchen of their big brick house which stands on land farmed by Stewart's family for four generations. Stewart has already passed something on to sons Doug and Brian—his electric train

A City on Their Doorstep

The Andersons work at good farm-city relationships

TROUBLED BY TRESPASSERS? The location of the Stewart Andersons' farm, partly in the city of Stratford, Ont., makes them particularly vulnerable. Industrial development borders one side of the farm and they're on a busy highway which is rapidly sprouting commuters' homes.

Several years ago, a group of boys with BB guns shot the tires on a hay fluffer. The Andersons grew cautious about casual visitors. And as the farm grew increasingly mechanized, they feared for the safety of visiting children who were strangers to farm equipment. Helen Anderson explained their solution to the problem.

"A number of city children come in and say they would like to look around. We say 'Fine. Go home and phone and let us know when you'd like to come. And when your mother OK's it, if it's convenient for us, come ahead.'

A city teacher who had been to the farm with a Y hiking tour provided the Andersons with another opportunity for supervised visiting by city children. She called to ask if she might bring 90 children from kindergarten, grade 1 and grade 2 classes on a field trip to the farm.

Helen and Stewart agreed that it was worthwhile; the organized visit could be used to teach the children that there is a routine on a farm, and danger as well.

Two classes arrived at the same time for the first hour-long tour. Helen took half of them through the barn, pointing out the hazards as well as the helpfulness in the working of the barn cleaner. She explained that manure served a good purpose on the farm, despite its smell! Meanwhile, Stewart took the rest of the children on a wagon behind the tractor. They toured the fields and he explained why the cows, calves, heifers and dry cows were kept where they were and why he grew what crops could be seen. Then he and his wife exchanged groups of children.

by GWEN LESLIE

THE ANDERSONS BELIEVE in education and practise that belief in a practical fashion. Helen herself is taking a typing course this winter, and enjoying it.

"I'd been talking about all the things I could do if I could type," she told me, "and the family called my bluff by giving me a typewriter for Christmas. The course itself has been good for my brain — I think it's good for everyone to do something different."

"I don't have to concentrate on the daily chores such as making a bed or a cake," she added, "and having to really concentrate for this 2 hours a night twice a week has been good for me."

Already she's enjoying the convenience of being able to type six copies at a time. This is handy



Helen has many uses for her new typing skill

for her 4-H club girls' project work. When I visited her, they were preparing a skit for Achievement Day. Helen believes the skits have value.

"For one thing," she said, "the girls learn to work together, and all of them gain poise when they prepare a skit. With an exhibit, just one girl learns — the one who is responsible for it."

HELEN APPLIES HER TRAINING as a teacher on Sundays too, when she teaches the 6- to 9-year-old junior congregation in the city church which they attend. Helen explained that their community has no one church or school; no oneness at all.

It will have a new school this year, one it will share with two other school sections in a school area formed in January. Stewart is chairman of the 5-member school board.

The Andersons' two sons attend school in Stratford at present, as do most of the youngsters in their area. Seven-year-old Brian has always gone into the city to school; Doug, who is 5 years old, started kindergarten there last fall. Helen shares chauffeur duty with neighbors, and she sees a safety factor in the bus service the new school will provide for the children. She says, "The children will certainly be much safer riding in the bus than walking along this busy highway. For that matter they'll be safer than they are riding in a car. People take notice of a school bus as they don't of a car."

In the same way as they solved the trespasser problem to mutual advantage, the Andersons meet the challenges of modern-day farm living with a creative and positive approach. ✓

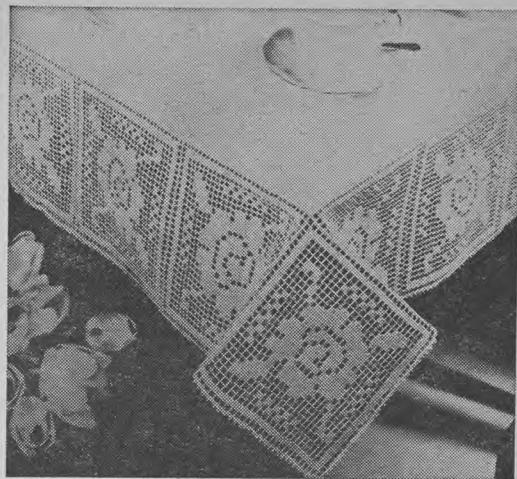
Home
and
Family

Edgings for household and personal linens

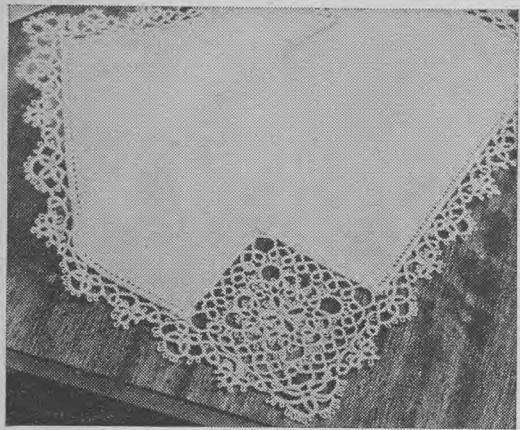
Leaflet No. 9182, 10¢, provides crochet instructions for seven different styles in edgings suitable for household linens.



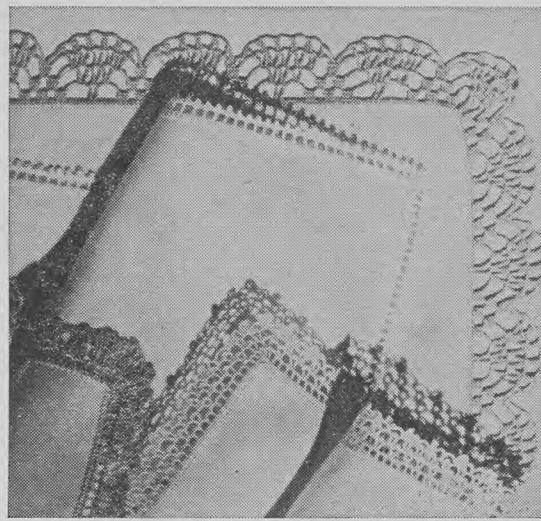
A rose motif is worked into the 20 crocheted squares joined together as an edging for a 36-inch square tablecloth. For crochet pattern instructions, order Leaflet No. P.C. 1613, 10¢.



Crocheted lace makes a hankie into a very feminine accessory. Leaflet No. A-159, 10¢, offers crochet instructions for four different hankie edgings.



A tatted edging and corner motif trims the 9-inch square linen napkin pictured at left. For tatting instructions, order Leaflet No. P.T. 9095, price 10¢.



For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.



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**The brooms
are often
taller than the
curlers
in this bonspiel**

Sweeping Their Way to Sweets

by ELVA FLETCHER
Home Editor

IN SASKATCHEWAN'S Windthorst district, curling is for kids too. It started 9 years ago when the members of the Windthorst Curling Club decided to give the children who were too young for regular school curling their chance. Now that the peewee bonspiel is an important feature of the community's winter sports program, they call it the "Biggest Little" bonspiel in the province.

This year's bonspiel brought its usual happy bedlam as 82 out of the 84 eligible children brushed up on their curling technique. Only such disasters as measles kept the pint-sized curlers out of the competition. "They all wanted to curl," Jack Glover says. And so far as he's concerned, the most important thing is that there be a place for everyone. Even those who aren't old enough want to get in. As I talked with Jack Glover in his hardware store, his wife, Jean, was answering the phone. "No, I'm sorry . . . but you'll be able to curl next year." The caller was a disappointed five and three-quarter-year-old who wanted desperately to play in 1964's "Biggest Little" Bonspiel.

The bonspiel is sponsored by the Windthorst Curling Club. There are no entry fees and prizes are guaranteed to appeal: they're jumbo chocolate bars for the winners, small ones for everyone else. And it's as much like a regular bonspiel as is possible to make it.

The youngsters have no use for jam pail curling. Those who participate use the 40-pounders played by their parents. However, they don't use the regulation sheet of ice. Instead, each of the rink's two sheets of curling ice is divided in two by wooden bumpers made of two 2 by 4's to make four sheets. Icemaker Ansley Dew then

marks off 12-, 8- and 4-foot rings in the proper places. When that's done, bonspiel convener Jack Glover makes the draw.

The young curlers have occasionally played 6-end games but usually they play four. With so many entries that's about all that can be crammed into an afternoon. They get their position on the rink on the basis of age. For example, leads are usually the 6-year-olds with a sprinkling of 7-year-olds. The eights and nines qualify as seconds; 10- and 11-year-olds play third. Skips must be 12 years old. They're veterans: after all, they've moved to the top of the curling ladder!

IN ITS FIRST YEAR the bonspiel was open to children from 5 to 11 years of age. "That didn't work very well," Jack says, "because the 5-year-olds would throw a rock and as likely as not they'd run outside to play." The next year the age limit was raised, to take in the 6- to 12-year-olds. This arrangement worked so well that it has never been changed.

The Curling Club not only sponsors the event but members—two to each of the four sheets—show the youngsters how to throw inturns and outturns, how to sweep, what it means to be "on the broom," how to score. One member, Ed Larose, knows from experience just how quickly they learn. During one of his regular games one of the small-fry curlers called out "You made the wrong turn." "I had," he grinned.

When the bonspiel was first organized, the children came into town from schools all over the district. The farm children didn't know the



Bonspiel convener Jack Glover (upper left) oversees the peewee play

town kids and everyone got a name tag to speed up the introductions. Now that the youngsters all attend school in town, they know one another and this makes Jack Glover's work a lot easier. "I just walk over to the school, get a list of the 6 to 12's from the teacher and make the draw." The bonspiel begins at 12:30 on a Saturday and carries through until the winning rink in each of two events plays off for the championship.

Actually, the peewee bonspiel is only one phase of an overall sports program for the children in the community. "We've always felt that it was important to have lots of things for them to do," Jack Glover says. Everyone in the community feels the same way.

MOST OF THE WINTER sports program centers around the big Windthorst rink, the first covered rink to be built along Saskatchewan's Highway 16. Built some years ago as a community rink, it was later taken over by the town of Windthorst. In addition to the two sheets of curling ice there is a multi-purpose skating rink. Two years ago water was piped into the building. The 80-member curling club operates the building for the town, allocates the ice for hockey, figure and pleasure skating, and hires the icemaker and caretaker. A ladies' auxiliary operates the lunch counter. A different group staffs it each day, donates the food to be served and does the serving.

The Windthorst district enters hockey teams into PeeWee, Bantam, Midget, Juvenile, Modi-
(Please turn to next page)



Young curlers in Windthorst's annual peewee bonspiel soon learn the meaning of "being on the broom"

Players such as those pictured graduate into school curling with more than a little knowledge of the finer points of the roaring game





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fied Junior and Senior leagues. And even as the 6- to 12-year-olds were curling at home, the district's Midget hockey team was 250 miles away, battling the Beechy team for the South Saskatchewan championship and a chance at the provincial title. There has always been a figure skating club at Windthorst. Youngsters take lessons from a qualified teacher each Saturday morning and are allowed practice periods three times a week.

With all this community activity within its confines, the rink is almost inadequate for the demands made

on it. But an improvement program is underway, made possible by a \$4,500 contribution from the Windthorst Co-op. When the co-op's building burned last year the co-op's board of directors decided against rebuilding. Even after members were paid out, a sizeable sum remained and, at this point, the board decided to put the amount into community causes — churches, cemeteries, firehall, restroom, legion hall and the rink. It's in this same atmosphere of community service that the Windthorst Curling Club sowed the seed for a new crop of curlers. ✓

Around the House

by BLANCHE CAMPBELL

Put a thin cellulose sponge under your chopping bowl to reduce noise when you chop.

Use a dome fastener to mark the increase spot in your knitting.

To clean piano keys, wipe them with a cellulose sponge which has been soaked in denatured alcohol, then wring out sponge and wipe keys dry. (Never use soap on piano keys. It stains the ivory.)

To keep left-over paint from hardening in the can, press the lid down firmly, then place the can in a polythene bag and tie the neck of the bag tightly. Don't of course, use grocery bags with ventilation holes.

Trouble reading your candy thermometer? Slip a rubber band around

the thermometer to mark the temperature desired. Then it's easy to read the thermometer. ✓

Wandering I Go

I like a sunny April day,
I like her rain showers too,
It's fun to wander thru the wood
And stir the morning dew.
The fragrance of the springtime day
Is wafted on the breeze—
The melody of a songbird's song
Puts one's mind at ease.

I walk along a winding brook
And watch the ripples pass,
Then pause awhile, take time
to kneel
In the meadow grass
To search for new life all about,
See bunny rabbits hop—
I like to wander on and on
And never want to stop!

—AGNES FINCH WHITACRE



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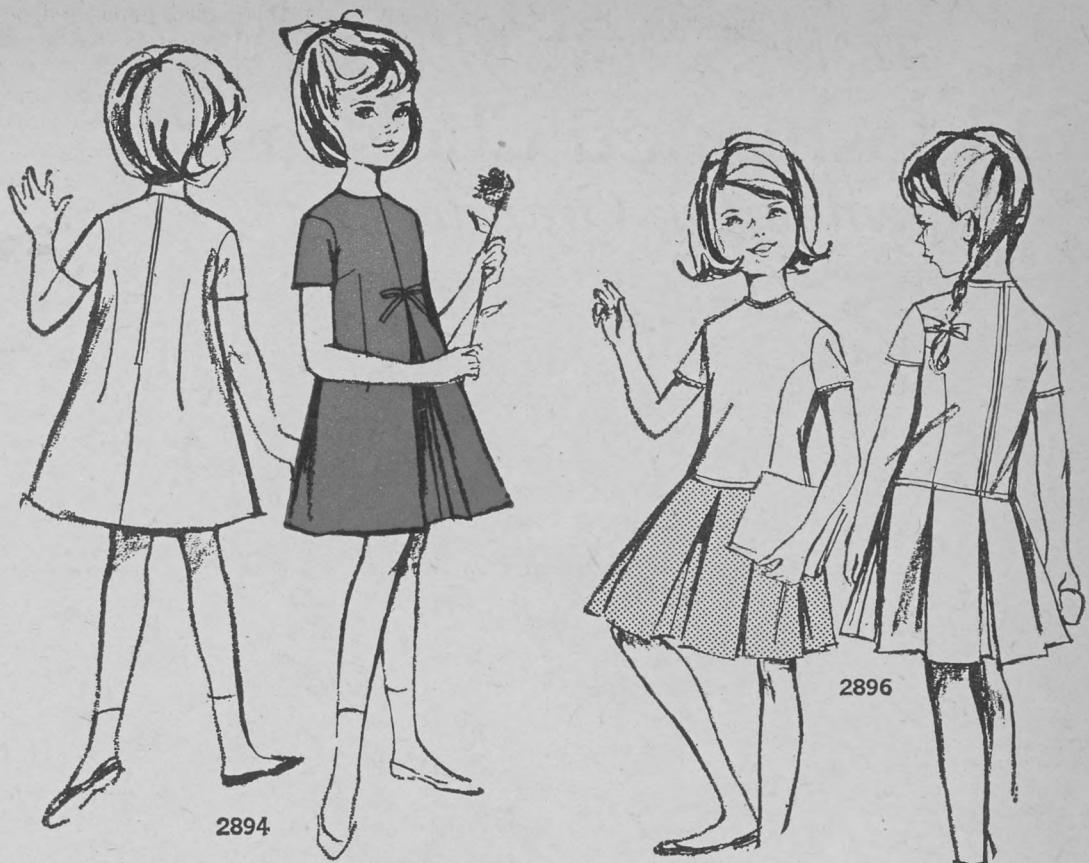


PATTERNS

No. 2894. A self bow set above a center front pleat is the only trimming on a short-sleeved, semi-fitted girls' dress. Available in girls' sizes 4, 6, 8, 10, 12; 60¢.

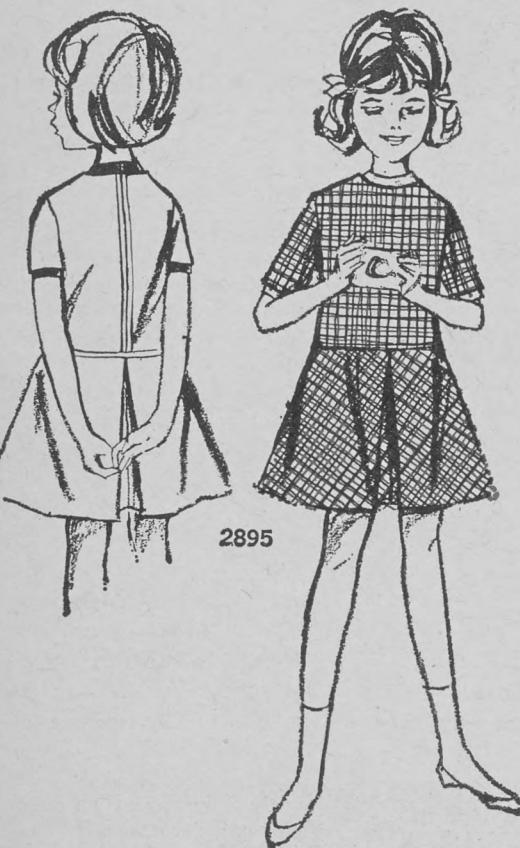
No. 2896. Princess seaming shapes the bodice of a drop-waisted skimpy dress. Broad pressed pleats give skirt fullness below top-stitching. Sizes 4, 6, 8, 10, 12; 60¢.

No. 2895. Front and back pleats center the shaped skirt of a low-waisted, back-zippered skimpy dress with detachable insets at neck and sleeves. 4, 6, 8, 10, 12; 60¢.



2896

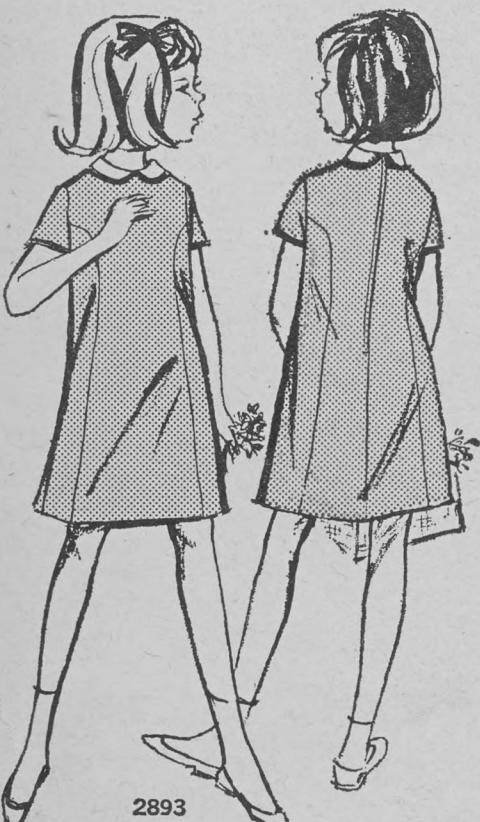
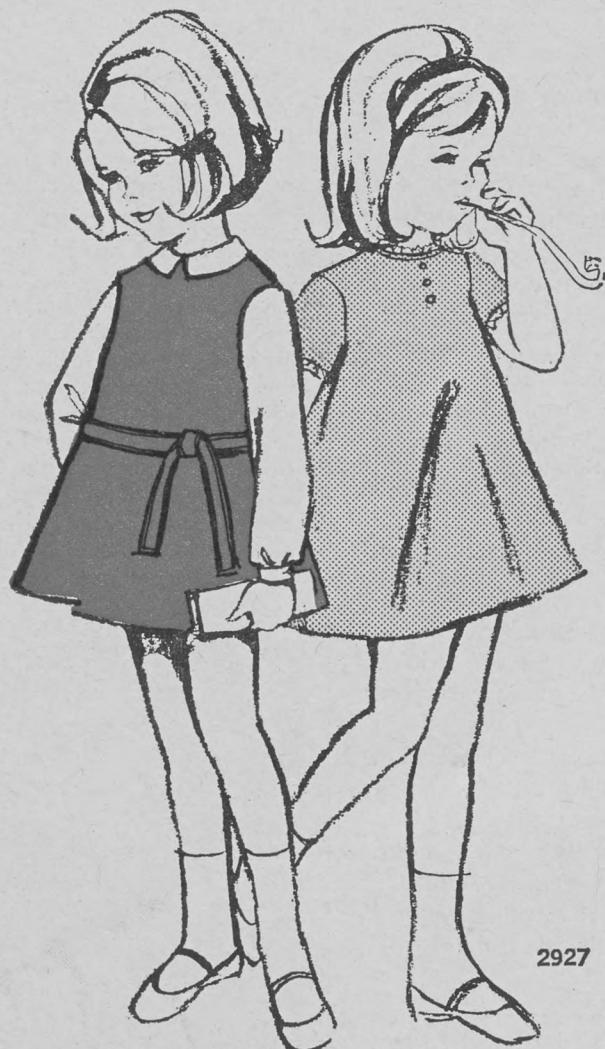
2895



AS VarieD AS A

CHILD'S

WORLD



No. 2893. Contrast cording and collar trim a Princess-seamed skimpy dress in sizes 4, 6, 8, 10, 12. Pattern price 60¢.

Every pattern envelope lists suggested fabrics suitable for sewing the pattern inside. These suggestions are based on fabric characteristics. The following fabrics are among those suggested for the patterns on this page. Do you recognize them by name?

DENIM: a washable, strong-twilled cotton or blend of cotton and synthetic. It may be dyed in one piece or woven with colored warp and white filler yarns.

PIQUE: a firm fabric with warpwise wales of cotton, synthetic or silk yarns. Waffle pique has a fine honeycomb weave; birds-eye pique has a diamond-shaped motif.

HOPSACKING: an open, basket-weave ply yarn fabric of cotton, linen or rayon.

SAILCLOTH: a very strong, firmly-woven cotton canvas now available in plain and printed clothing weights.

MADRAS: a fine cotton shirting with a woven design of stripes, fine cord, or checks. Fabric is also available in coarse, colorful, homespun cotton plaids.

No. 2927. Two of six possible variations of this back-buttoned A-line dress and smock pattern are shown at left. A pattern for elasticized panties is included. Sizes 1, 2, 3, 4, 5, 6; 60¢.

Country Guide Pattern Department
1760 Ellice Ave., Winnipeg 21, Man.

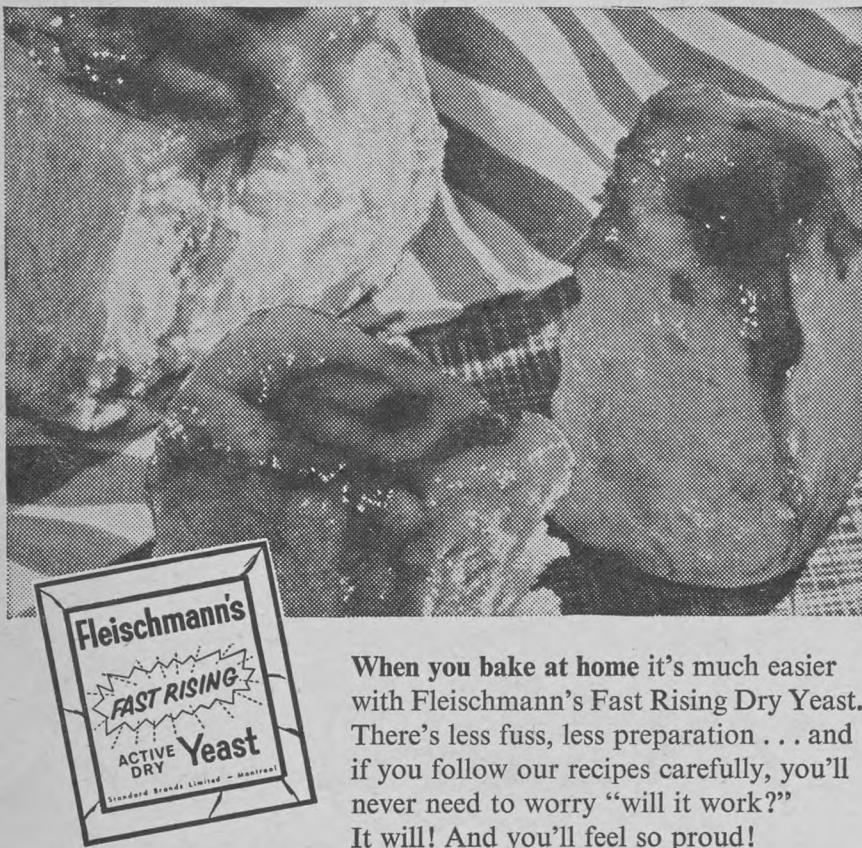
Please send Butterick Pattern No. _____
and Pattern No. _____

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You'll need for the dough:

1/2 cup milk
1/4 cup granulated sugar
1 tsp. salt
1/2 cup lukewarm water
1 tsp. granulated sugar
**1 envelope Fleischmann's
Fast Rising Dry Yeast**
1 egg, well beaten
**3 1/2 cups (about) once-sifted
all-purpose flour**
1/4 cup soft shortening

for the filling and glaze:

**soft butter or Blue Bonnet
Margarine**
**3/4 cup lightly-packed brown
sugar**
2 tps. ground cinnamon
1/2 cup seedless raisins
**2/3 cup lightly-packed brown
sugar**

1. Scald milk; stir in $\frac{1}{4}$ cup granulated sugar and salt. Cool to lukewarm.

2. Meantime, measure lukewarm water into large bowl and stir in 1 tsp. granulated sugar. Sprinkle with yeast. Let stand 10 minutes, then stir well. Stir in lukewarm milk mixture, well-beaten egg, 2 cups of the flour and soft shortening. Beat until smooth and elastic. Work in remaining $1\frac{1}{2}$ cups (about) flour.

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IN THE KITCHEN

Tricks with a Mix

by GWEN LESLIE
Food Editor

THE HOME ECONOMICS Service of the Ontario Dept. of Agriculture introduced a new community service program last fall which it called Food Forums. "Tricks with a Mix" was one topic chosen for forum presentation. As the home economists pointed out, today there's a mix for almost everything. A taste panel selected the homemade mix recipe below from mixtures made with different kinds of flour, baking powder and shortening. Comparing costs for the 8-cup amount with a large package of commercial biscuit mix yielding about the same measure, the homemade mix cost approximately 35¢; the commercial mix 53¢. This one requires no refrigeration—just store it in closely covered containers, such as screw-top jars, in a cool, dry place. It will keep at least a month at room temperature, and will still produce a product of very fine quality at the end of that time.

The Ontario home economists described a perfect biscuit as one which baked to twice the volume of the unbaked dough. It has straight sides and a level top. The crust should be golden brown and free from specks; the inside, creamy white with a light and fluffy, flaky texture.

THE KEY TO GOOD BISCUITS, they said, is thorough but speedy mixing, which produces a dough that is soft but not sticky. Uniform mixing gives a fine, even texture and prevents tiny brown baking powder spots. The soft dough makes a light, tender biscuit. For uniform mixing, sift the flour, then measure and sift at least three times with the measured baking powder and salt. Using a pastry blender or two knives, cut the measured firm fat in until mixture is quite fine and well-mixed. Add the

milk all at once and stir briskly with a fork until dry ingredients are thoroughly dampened. The dough will stiffen up rather suddenly, and should not be stirred after it stiffens. Knead lightly 8 to 10 times on a floured board. An even cutting motion is important to the biscuit shape. After patting or rolling the dough to the desired thickness, cut with a lightly floured cutter and with the same motion, lift biscuits to the baking sheet and shake from the cutter. Twisting the cutter or using an uneven cutting pressure causes biscuits to bake unevenly in irregular shapes. A hot oven is recommended.

Biscuits are best served fresh from the oven. However, they will freeze satisfactorily for 2 to 3 months. Cool thoroughly before wrapping for the freezer. Thaw in the wrap at room temperature, or unwrapped in a moderately slow oven at 300°F.

Ready Biscuit Mix

5 1/4 c. sifted all-purpose flour	1 1/2 tsp. salt
3 T. baking powder	1 c. shortening

Sift together the sifted all-purpose flour, baking powder and salt. Stir to mix well; then sift together 4 times. Cut in shortening with pastry blender or two knives until mixture resembles fine meal. Store mixture in jar or tin with tight-fitting lid. This mixture will keep 4 to 6 weeks without refrigeration. Yields about 8 cups ready biscuit mix.

Tea Biscuits

2 c. ready biscuit mix (do not pack)	5/8 c. milk
---	--------------------

(Please turn to page 67)



Kraft photo
Cheese biscuits, so good with salads, are made from this ready biscuit mix

Tricks with a Mix

(Continued from page 64)

Preheat oven to hot temperature at 450°F.

Measure biscuit mix in bowl; add milk and stir with a fork to mix well. Turn dough out on a floured board and knead 8 to 10 times. Roll or pat to $\frac{1}{2}$ " thickness. Cut in desired shapes and place on an ungreased baking sheet. Bake in preheated oven for 12 to 15 minutes. Or bake biscuits in a lightly greased electric frying pan set at 350°F. Bake for 15 minutes, leaving the vent open or the lid slightly ajar, and turn biscuits once during baking. Makes 10 to 12 medium biscuits.

Simple Variations

1. Vary the size and shape of biscuits: cut in circles, diamonds, squares or triangles.

2. Add one of the following to 2 cups ready biscuit mix:

- $\frac{1}{4}$ to $\frac{1}{2}$ c. grated Parmesan or nippy cheddar cheese and $\frac{1}{2}$ tsp. dry mustard
- 4 slices crisp, crumbled bacon
- $\frac{1}{2}$ to $\frac{3}{4}$ c. chopped, cooked ham
- $\frac{1}{4}$ c. snipped chives or chopped parsley
- 1 tsp. sweet basil
- $\frac{1}{4}$ tsp. curry powder
- $\frac{1}{4}$ tsp. dry mustard and $\frac{1}{2}$ tsp. sage
- Grated rind of 1 orange and 1 or 2 T. sugar
- $\frac{1}{2}$ c. raisins, currants or mixed peel or a combination of these.

3. For drop biscuits, add 2 T. or more additional liquid. Drop by spoonfuls on a greased baking sheet or into greased muffin tins.

4. Vary the liquid: Stir in $\frac{1}{8}$ tsp. celery seed or oregano to 2 c. ready biscuit mix and combine with $\frac{5}{8}$ c. tomato juice or $\frac{1}{2}$ c. water blended with 2 T. catsup.

Cinnamon Ring

$\frac{1}{4}$ c. walnut pieces	$\frac{1}{2}$ c. sugar
$\frac{1}{4}$ c. maraschino cherry pieces	1 egg
$\frac{1}{2}$ c. brown sugar	Milk
$\frac{1}{2}$ tsp. cinnamon	1 tsp. vanilla
1 T. butter	3 T. butter, melted
3 c. ready biscuit mix	

Preheat oven to moderate temperature at 350°F.

Butter an 8" ring mold or tube pan. Sprinkle bottom of pan with about 1 tablespoon each of the walnut and cherry pieces. Blend together brown sugar and cinnamon; sprinkle about $\frac{1}{4}$ of the mixture over bottom of pan. Dot with 1 tablespoon butter.

Thoroughly blend biscuit mix and sugar. Break egg in measuring cup and add enough milk to measure $\frac{2}{3}$ cup. Add vanilla and blend with a fork. Add liquid to biscuit mix, stirring thoroughly with fork. Turn dough out on floured board and knead 8 to 10 times. Cut dough in 4 pieces; divide each piece in 7 and shape into balls. Dip each ball

into the melted butter and roll in remaining brown sugar and cinnamon mixture. Place in pan in 2 alternating layers and sprinkle remaining walnuts and cherries between the layers and on top. Bake in preheated oven for 25 to 30 minutes.

Spicy Meat Turnovers

$\frac{3}{4}$ lb. bologna, wieners, ham or canned luncheon meat, minced or finely chopped	2 drops tabasco sauce
1 egg, beaten	3 c. ready biscuit mix
3 T. shortening	$\frac{1}{3}$ c. catsup or chili sauce
2 T. prepared mustard	$\frac{1}{3}$ c. water

Preheat oven to moderately hot temperature at 425°F.

Blend minced meat with mustard, tabasco sauce and beaten egg. Cut shortening into biscuit mix. Mix in catsup and water lightly with a fork. Turn dough out on a floured board, knead 8 to 10 times, and roll into a rectangle about $\frac{1}{8}$ " thick. Cut rolled dough into 12 small rectangles about $3\frac{1}{2}$ " by $4\frac{1}{2}$ ". Place a tablespoon of meat filling on one half of each rectangle and fold dough over filling. Press edges to seal. Place on a greased baking sheet. Bake in preheated oven for 15 to 20 minutes. Serve hot with parsley sauce or undiluted cream of celery, asparagus or mushroom soup. Makes 6 servings of 2 turnovers each. V

Cutlery Cues

THE RIGHT KNIFE can make many daily cooking chores much easier. Since there's a knife for every purpose—paring, carving, peeling, slicing, cutting, trimming, dicing—the trick is to know which is the right knife for the job. Obviously no one knife can do all these jobs well.

Generally speaking, modern stainless-steel knives have two kinds of blades: (1) hollow-ground or straight smooth edge, and (2) blades with crescent cutting edges. At least eight different kinds of knives are essential to any well-run kitchen. These range from the little paring knife to the long-bladed French Chef's knife, and include the various cutting knives for slicing roasts, steaks and hams.

—the French Chef's knife with a 6" or 8" blade is a must for chopping

and dicing carrots, potatoes, green peppers, celery, onions, scallions, beans, corn on the cob, cabbage, squash, pears and rhubarb.

—a pointed-tip paring knife is needed for peeling cucumbers, carrots, and onions. It is short and strong for deft handling, and the pointed tip makes it easy to cut away blemishes on vegetables.

—a steak slicer is best for cold processed meats, sausages and cheeses, such as Muenster, brick and Swiss.

—a bread and cake knife, with its many crescent cutting surfaces, does a much neater job on baked goods such as angel food, chiffon-type and sponge cakes, as well as on bread and large roasts. It stays sharp because points take the wear, not the crescent cutting edges.

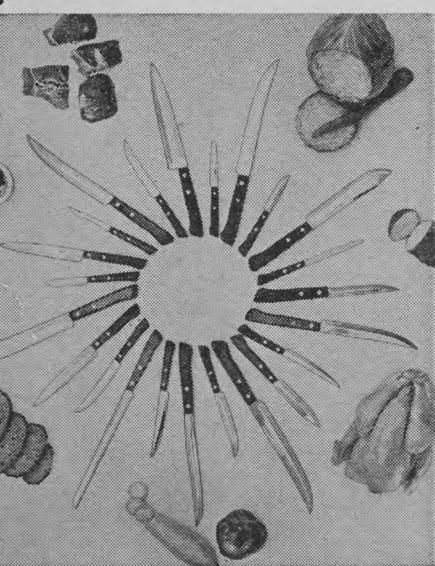
—a boning knife, with a large handle and short blade, is recommended for disjointing poultry or removing bones from raw meat.

—a crescent cutting edged roast slicer or the hollow-ground roast slicer glides through beef, veal, steaks and pork with ease.

—a small roast slicer for blade-cut pot roasts and loin roasts, also works well on melons, pineapple and citrus fruits.

—a ham slicer with a 9 $\frac{1}{2}$ " blade is recommended for carving exact, thin slices of ham and also glides quickly through the broad breast of a turkey.

Other useful additions to these basic cutlery essentials include a Swedish Cook's knife, a grapefruit knife and a butcher knife. Once you try these, you'll wonder how you did without them. V



Ekco Products Co. photo
The right knife, with a handle which fits your hand, speeds cutting jobs

Do's and Don'ts of Knife Care:

Do use knives only for their particular purpose — not for cutting metal, string or paper.

Do store knives separately so the cutting edges will not become dulled by knocking against each other.

Do remember always to cut food on a wooden board placed on counter or table top for firm cutting.

Don't soak your knives. Instead, wash and dry them immediately after use.

Don't wash them in an automatic dishwasher unless you are sure that the handles will resist heat and moisture.

Don't heat blades in a flame; the heat will destroy the temper of the steel.

Keep Cutlery Sharp

Every homemaker (or her husband) should learn how to use a sharpening steel. Keep it handy at all times, and give a hollow-ground knife a few strokes before you use it. This doesn't sharpen the knife but merely resets and realigns the cutting edges. Three or four strokes on each side are enough to assure a good cutting edge.

When using the steel, pull one edge of the knife across the steel, working down gradually to the tip of the knife. Then do the same on the other side of the blade. A few strokes on each side of a good hollow-ground blade will maintain a keen edge.

Crescent-edged knives almost never need their edges reset. If, after years of service, yours do not have a razor-sharp edge, a few strokes on the back side of the blade (the side without crescents) will restore a keen edge. V



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A ring at the tapered end of the scarf allows the wearer to adjust it as she desires. For example, it can be worn as an off-the-shoulder, neck or head scarf and it can also double as a hair band or turban. ✓



[Du Pont of Canada photos]



Grey Owl and the Tree Water

by JEAN WYATT

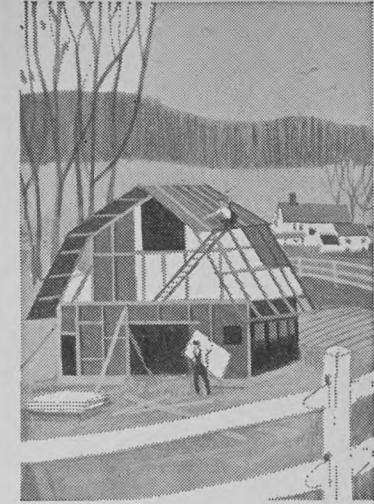
LONG AGO Canada was a green wilderness. It was a land where great rivers flowed through the silence of unending forests. The Indians who lived there were hunters. The animals of the forest supplied them with their food and clothing.

It was only natural that every Indian boy wanted to become a mighty hunter. But first he must win the right to hunt with the braves of his tribe: he must bring down his first game—for food only. And this is what Grey Owl, ten winters old, had yet to do.

It was the time of the Moon of Flowers—of the first warm sun and soft winds of spring.

Grey Owl trod the forest floor, picking his way silently and swiftly around the tree trunks. His dark eyes were alert for sight of a rabbit or a squirrel. Suddenly his quick ears informed him that something was coming down the trail and he made his bow and arrow ready.

Was it the soft pad of Wild Cat, a creature large enough to be dangerous? Perhaps it was the rustle of a squirrel! The forest held so many



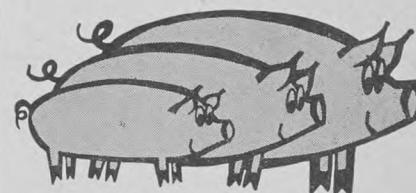
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Another fine product of VIOBIN (Canada) Limited, St. Thomas, Ontario

secrets that not even the wisest Indian brave knew all.

Concealing himself, Grey Owl waited the approach of the stranger. Peering from behind the friendly tree trunk the boy beheld an Indian running down the path.

Grey Owl sighed deeply as the patter of moccasins passed him.

"A scout of our tribe returning from a mission," Grey Owl thought.

GREY OWL was about to continue through the woods when he spied a trickle oozing down the maple tree beside him. It was this tree which he had hit with his bow and arrow but two sleeps ago. Something strange had happened to it.

The boy put out an inquisitive finger. He touched the trickle and then brought the stickiness to his lips. His dark eyes brightened. In the next moment he hurried along the path, back to the camp.

Willow Leaf, his mother, was busy beating and softening the skin of a deer. It was easy to help himself to a clay pot from their teepee.

In no long time Grey Owl returned to the maple tree in the forest. He placed the clay pot beneath the hole in the tree. Then he waited. The clay pot filled slowly. But Grey Owl was of a mind to wait patiently, amusing himself by trying to read the trail to see what animals had passed, and how long since they had gone by. It was easy to read the tracks in the snow, but hard to do so in the spring woods.

At length he picked up the full clay pot. Carefully he made his way over the trail again. Smoke from the camp fires told him he had reached home. Already Willow Leaf, his mother, was preparing their evening meal of moose meat.

She looked up as Grey Owl approached.

"Has the day gone well with you, little one?" she asked with a smile.

Grey Owl nodded. He held out the brimming clay pot.

"My mother," began the Indian boy, "can you not boil our moose meat in this sweetness which stirs from the maple tree in the forest?"

Willow Leaf looked puzzled, but she dipped a finger into the clay pot and brought it up to her lips. Then she smiled back at her son.

That night when Grey Owl's father, White Cloud, returned from the fishing grounds with the other braves, the little family sat down to their meal. What a wonderfully delicious meal it was! White Cloud grunted in approval as he finished the last piece of moose meat.

Grey Owl smiled. Then eagerly he told all about the tree in the forest—how he had discovered the tree water trickling from a hole his arrow had made in the bark, how he had filled a clay pot and how his mother had boiled the moose meat in it, instead of water.

White Cloud listened intently.

Next morning, hardly before the sun had climbed into the tent of blue sky, Grey Owl proudly led his

father to the maple tree in the forest.

That night everyone in the encampment enjoyed moose meat cooked in sweet maple sap!

Although he had yet to bring down his first game for food and so win the right to go with the braves on their hunting expeditions, Grey Owl could not be sad. There would be other days.

"The maple tree gave up its secret to me," the Indian boy told himself, "and my heart is happy. It is good to share such a secret with my friends and companions."

It has been said that friendly Indians passed the secret of maple syrup to the first white men many years ago. V

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For top-quality grain, plant DeKalb 414 corn next time. Farmers who have grown this variety know its ability to produce excellent yields of sound corn. Adapted for grain production in the Southern part of Ontario, DeKalb 414 is rated at 115 days to maturity. A Selected 5-Acre Contest Plot of DeKalb 414 produced the top Canadian Yield of 149.73 bu., per acre in the 1960 DeKalb Selected 5-Acre Contest. DeKalb 414 has the stalk height to produce big tonnages of fodder, and farmers like the quality, too. For grain, or for fodder, order DeKalb 414 Corn now.

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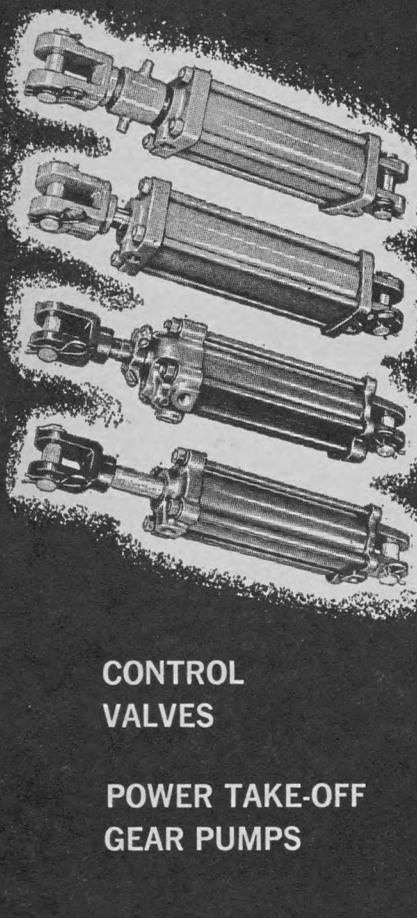
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STROKE CONTROL

STANDARD

DO WESTERN FARMERS WANT A HOG BOARD?

(Continued from page 10)

gathering station. The board would not impose quotas or regulate production. But it could encourage short delays in delivery, or speed up delivery if that were advisable, and prevent direct delivery to any buyer in the province. However, there would be no jurisdiction over breeding herds, purebred sales, feeder sales or ordinary farmer-to-farmer sales. Small lots of hogs for small abattoirs would also be exempt from regulation.

"No one is saying farmers must have a hog marketing board, but producers can have a board if a majority of them vote for one."

Board Opponent

Sten Berg, marketing board opponent, and himself an FUA member, dealt with the three main purposes given by the FUA for an Alberta hog marketing board: (1) to assure all Alberta slaughter hogs are sold on a competitive market; (2) to streamline the assembling and delivery of hogs and reduce marketing costs; and (3) to provide a market information service to give guidance in production and delivery programs, including quality and economy.

Said Berg, "The assumption here is that the farmer will receive more money if all hogs are forced through a single selling agency. The Ontario Producers' Hog Marketing Board is considered to be the shining example, but he for one, believed that it was resulting in lower, rather than higher prices.

Because hogs are bought on a rail grade basis in Canada, he said it was unnecessary to assemble and parade them at the time of sale. They could be sold before they leave the producer's farm, f.o.b. the packing plant. Under the Ontario plan, hogs must be gathered at assembly points prior to sale by teletype. "This function," he said "involving operation of 45 assembly points in Ontario, cost their producers \$387,250 last year. Salaries and wages paid out by the O.H.P.M.B. in the same period came to \$509,452. In their 1963 statement the total Board costs were given as \$1,033,149, which means labor costs amounted to 49.3 per cent of the total."

Berg went on to show other ways the O.H.P.M.B. "reduces" costs. He told of the annual meeting of the 297 Board directors in the Royal York Hotel, with expenses paid and a bonus of \$15 per day per man to attend. This alone cost Ontario producers \$11,070 last year.

"But the costs I have mentioned so far are a mere pittance," he continued, contending that the greatest cost is the extra shrink suffered through unnecessary handling.

Dealing with the third point about providing a market information service, Sten Berg pointed out that we already have such a service—and a good one. He was referring to the blue-colored "Livestock and Meat Trade Report" turned out weekly by the Markets Information Section of CDA.

"Do marketing board promoters feel they can do a better job than this?" he asked.

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"We have been using Rex Oil for two years and believe it to be the answer to a great many breeding problems . . ." J. H. Jowsey

"We are making it a part of our winter feeding program from now on." H. L. L. Leeds.

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How and Why to Use Credit

(Continued from page 26)

ly can have serious consequences. It is not a substitute for income or proper management.

- **Consolidate credit sources.** Avoid credit on a piece-meal basis and from too many different sources because of the difficulty in keeping track of payments, interest rates and due dates.

- **If estimates indicate that borrowing will be sound, don't let risks keep you from borrowing.** It may be wise for young farmers to get credit early, and to carry enough life insurance to cover the debt.

SOURCES OF FARM CREDIT

Once the decision has been made to obtain credit, you are ready to go to the market place. But first, there are two things to know: The alternative sources of credit, and the cost of each.

There are three general types of loans available: short, intermediate and long term. Short term loans are usually for a year or so, while long term loans may take up to 30 years or more to repay.

The Farm Credit Corporation offers long and intermediate term credit for purchase of land, implements, livestock and operating supplies such as fertilizers and feeds. Loans are available for land improvements, including buildings, fencing, water supplies, irrigation and drainage. Loans can also be made to discharge any existing debts. A maximum loan of \$27,500 is available with up to 30 years to repay. The interest rate is 5 per cent simple interest.

Loans for farm improvement to a maximum value of \$7,500 are available under The Farm Improvements Loans Act. Repayment varies from 3 to 10 years. Loans of this nature can be used to purchase such items as implements, breeding stock, farm buildings and farm electrification systems. These loans are available from local banks at 5 per cent interest.

Short and intermediate term loans may be obtained for a variety of farm credit needs through credit unions. The borrower must be a member, however. Amount of loan varies with available funds in each credit union as well as the credit rating and debt load of the borrower. Interest rates vary from 7 per cent per year to 1 per cent per month on the unpaid balance. Credit union loans carry life insurance at no extra cost.

Short term loans are available from chartered banks mainly for operating expenses. The amount of loan obtained depends on the credit rating of the applicant as well as his net worth. These loans are usually for a one year period, but renewable each year.

Some farms are obtaining loans from mortgage and trust companies.

Many forms of short and intermediate term loans are available from dealers and finance companies. This type of credit is usually restricted to 2 years and interest rates are high.

Credit is also supplied by processing or farm supply firms. Usually this is part of a contract to supply

goods or services to the farmer such as financing feed, poultry, hogs and feeders.

Whether the loan we want is of short or long term nature, the cost and repayment period are important.—Gary Carlson.

Smoke and Fire in Tobacco

(Continued from page 16)

Ontario is no longer feasible and should be abandoned as soon as possible. Mr. Kerr, in his minority

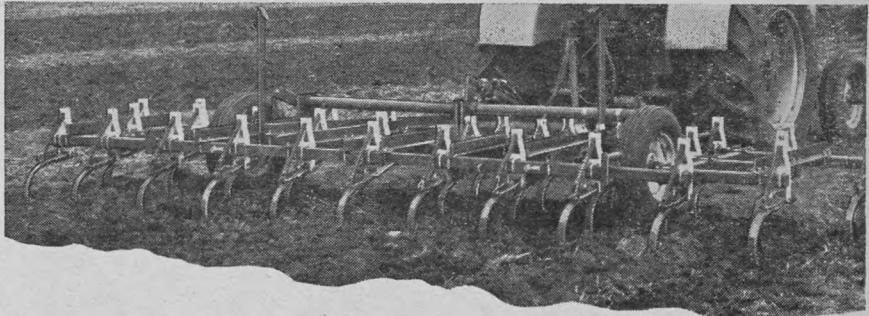
remarks, contends that production controls have brought an unusual degree of stability to the industry.

- The use of MH30 (for sucker control) is detrimental to the industry as a whole—the Board should prohibit the marketing of tobacco on which MH30, or a similar chemical, has been used.

- The best and only real road to prosperity for Ontario tobacco producers lies in the expansion of export markets.

A 4 FT. WIDER STRIP EACH TRIP

at up to 5 m.p.h. because Glencoe Cultivators pull easier.



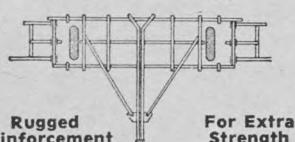
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CHOOSE DEPENDABLE AC SPARK PLUGS FOR ALL THESE JOBS, TOO!
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THE LACOMBE HOG

(Continued from page 13)

The fact that a boar and sow are registered does not mean their offspring can be registered too. This is the essence of the breed's motto: "Proven by test before registration." It's a built-in safeguard for every Lacombe buyer.

Many breeders have been converted to Lacombes because of the hog's superior vigor and growth rate. Here are some official Canadian R.O.P. test results which compare Lacombes in direct competition with two well-known hog breeds:

Breed	No. Litters Tested	Avg. Age at Slaughter (days, 200 lb.)	Feed per lb. Live Gain	Average Carcass Score
1959-60—				
Yorkshire	848	186	3.53	76
Landrace	146	185	3.72	76
Lacombe	129	172	3.50	77
1960-61—				
Yorkshire	732	182	3.46	76
Landrace	147	178	3.52	79
Lacombe	274	168	3.46	76
1961-62—				
Yorkshire	949	182	3.42	77
Landrace	167	176	3.52	77
Lacombe	230	169	3.40	78

As you can see, the Lacombes are right up there in feed efficiency and carcass quality, and beat the others by almost 2 weeks in reaching a market weight of 200 lb.

Commercial producers like the way Lacombes are performing for them. They have found that cross-bred females sired by Lacombe boars give them litters that are larger and stronger. Piglets have a high weaning weight, show rapid growth and produce top carcasses. It's not unusual for Lacombes, either purebred or in crosses, to produce litters which weigh more than 48 lb. at birth and go to market (200 lb.) at 130 to 140 days old. Lacombe boars also adapt for service in A.I. centers and their weekly semen production ranks with the best of other breeds.

The Lacombe has come a long way since the first registrations took place. From 1958 to 1960, the Research Station distributed 462 breeding females and 151 boars to carefully selected private breeders across Canada. Formed in 1959, the Canadian Lacombe Breeders' Association has over 150 members. With registrations running about 2,000 hogs per year, the Lacombe now accounts for 10 per cent of all Canadian swine registrations. An American Lacombe Breeders' Association has been started with headquarters at DeWitt, Iowa. In 1962, a large shipment of Lacombes went to Britain. This was soon followed by a shipment to Japan. Enquiries for breeding stock are coming in from many countries, including South America, Italy and Germany, bringing international recognition to the Canadian livestock industry.

In case you might still wonder if it "paid" us to develop the Lacombe, Country Guide asked that the costs of the project be stacked against the dollar returns now coming in. Here is the answer: If the 10 per cent of Lacombes presently registered breeds 10 per cent of the national pig crop, the saving of feed and labor (10 days to 2 weeks quicker to market) would save Canadian swine producers more in one year than the cost of this whole 10-year breeding project! ✓

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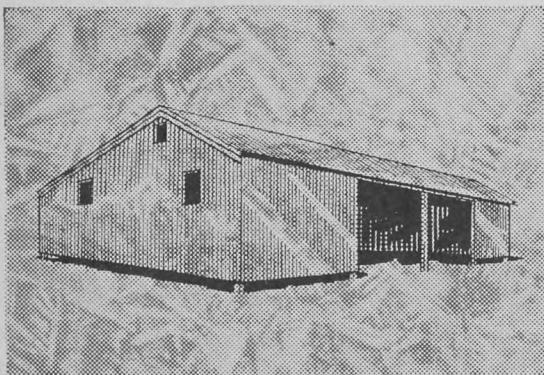
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COUNTRY GUIDE

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According to a recent study, maintenance costs on equipment drop as much as 40 per cent when it is properly protected from the weather. For example, the life of a tractor can be extended as much as 20 per cent and drill life, 60 per cent. You can expect cultivators to serve you 25 per cent longer and combines 34 per cent longer. As a businessman, you know what this can mean in terms of lower depreciation and higher trade-in values. Another mighty important point; you waste far less time repairing farm machines when you protect them from rust and other weather damage.

Certainly, a galvanized steel implement shed is one of the wisest investments you can make. How big is the investment? Probably far less than you think.

Because steel sheets have high structural strength, framing members can be more widely spaced. Erection costs less too—in many types of construction, panels can be quickly clipped or bolted together. This also means extensions and alterations can be made quickly and economically.

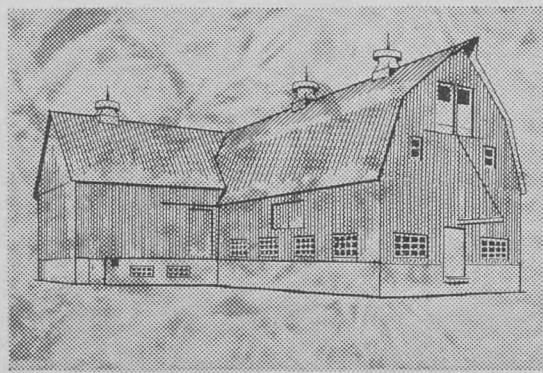
Think of your savings in building maintenance, too. Steel is strong; it defies impact that will damage other materials. And, of course, nothing stands up in rain, hail, and wind as well as galvanized steel. When considered in these terms, a galvanized steel struc-

ture costs less than other types.

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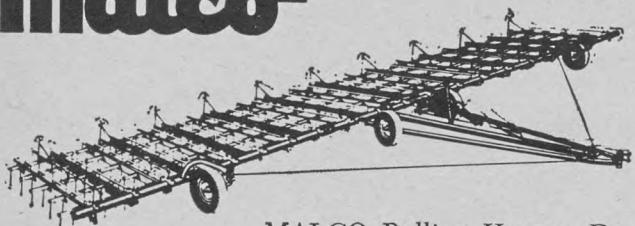
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Letters

Sees Opportunities

I think your new cover is an improvement but I would especially like to commend you for your efforts to point out the many opportunities there are in farming.

M.J.B.,
Hughenden, Alta.

Likes Guide

Your publication is the best in that very small group of farm papers that are truly worthwhile. One that has great appeal for every member of the family.

W.J.S.,
Alexander, Man.

Praise for Pete

I like Pete Williams in your February issue, and his story about taking that poor old man for an hour's drive. Good for Pete. There should be more like him in this live-and-let-live world. I lost my poor old dad, age 70, about two months ago. I have no car nor was I able to even visit him, due to reasons too many to mention. Well, he spent the last 10 years of his life in hospital unable to do much of anything. Now I could just picture him doing this same trick as Mr. Barton did and I just had to laugh. Sorry Pete, I'm laughing with you, not at you.

There's a difference you know. I guess it wasn't funny then, but I'll bet you laugh about it now. I hope you are. So don't belittle yourself nor call yourself a s-u-c-k-e-r. You are to be commended for you're a good Samaritan.

"ME"
Edgar, Ont.

Likes Look

Congratulations to your magazine for the new look of the March issue. And please have more beautiful paintings like your cover by Bert Smith. It looks so natural and beats Picasso all to pieces. At least we can understand it. As long as I can remember, the Country Guide has been in my home, first when I was a little girl, and now in my own home. It's a good magazine. Keep it coming.

Mrs. G.O.,
Louis Creek, B.C.

Good Reading

We have been receiving the Country Guide for quite some years now, but never until this month have we really realized how much good valuable reading we get out of it. We really enjoy it and look forward to it coming.

C.R.,
Beeton, Ont.

looked at the dog for a moment. It didn't make any move to come after him, but just stood there growling. He noticed it moved very stiffly and that both ears were frostbitten. It was a retriever of some sort.

Going to the car, he took a beef sandwich from his lunch and tossed half of it to the dog. The dog gulped it in a flash. My friend broke the other piece in two and tossed this down. Again, the dog tackled the piece of sandwich as if it hadn't eaten for a week.

There was no snarling now. In fact, the retriever's tail had given a couple of friendly flicks. My friend snapped his fingers and called the dog to him. Slowly it clambered up onto the road. By the time the rest of the sandwiches had followed the first one, the strange dog was willing to lick his benefactor's hand. When the car door was opened, the animal jumped inside.

Then my friend had a closer look at that culvert. There were no tracks in the snow away from it, so he figured the dog had been living there without food for at least a week. Before driving home, he called at the local police office to see if there'd been any reports of a lost dog.

"He was probably abandoned," the constable said. "It's done all the time. Some hunters steal a dog, use it and then leave it to fend for itself. This one was probably stolen some distance away, maybe even across the Line."

What bothers me is how a man can look on himself as a sportsman, or even a human being, when he does a thing like that.

Sincerely,
PETE WILLIAMS

COUNTRY GUIDE

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